



12-2016

# THE IMPACTS OF REGULATORY FOCUS AND TEMPORAL DISTANCE ON THE EVALUATION OF ONLINE CONSUMER REVIEWS

Seeun Kim

*University of Tennessee, Knoxville, skim86@vols.utk.edu*

---

## Recommended Citation

Kim, Seeun, "THE IMPACTS OF REGULATORY FOCUS AND TEMPORAL DISTANCE ON THE EVALUATION OF ONLINE CONSUMER REVIEWS. " PhD diss., University of Tennessee, 2016.  
[https://trace.tennessee.edu/utk\\_graddiss/4142](https://trace.tennessee.edu/utk_graddiss/4142)

This Dissertation is brought to you for free and open access by the Graduate School at Trace: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Doctoral Dissertations by an authorized administrator of Trace: Tennessee Research and Creative Exchange. For more information, please contact [trace@utk.edu](mailto:trace@utk.edu).

To the Graduate Council:

I am submitting herewith a dissertation written by Seeun Kim entitled "THE IMPACTS OF REGULATORY FOCUS AND TEMPORAL DISTANCE ON THE EVALUATION OF ONLINE CONSUMER REVIEWS." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Retail, Hospitality, and Tourism Management.

Youn-Kyung Kim, Major Professor

We have read this dissertation and recommend its acceptance:

Ann E. Fairhurst, Sejin Ha, Robert T. Ladd, Kiwon Lee

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

---

**THE IMPACTS OF REGULATORY FOCUS AND TEMPORAL DISTANCE ON  
THE EVALUATION OF ONLINE CONSUMER REVIEWS**

A Dissertation Presented for the  
Doctor of Philosophy  
Degree  
The University of Tennessee, Knoxville

Seeun Kim  
December 2016

Copyright © 2016 by Seeun Kim  
All rights reserved.

## **DEDICATION**

I dedicated this dissertation at the feet of my dad in heaven, Young-jo

and

To my mom, Jung-ja,

My husband, Tae Hyun

My daughter, Hailey, and

My son, Joshua, with their continuous love and patience.

## **ACKNOWLEDGEMENTS**

It is a great pleasure for me to thank all those people who helped me move through the process of completing my dissertation. First and foremost, I would like to thank my mentor and advisor, Dr. Youn-Kyung Kim, for her consistent trust, guidance, and support. Without her help and care, I could not have finished my dissertation. I am deeply grateful, and I could not have asked for a better advisor. I would also like to acknowledge my committee members: Dr. Ann E. Fairhurst, Dr. Sejin Ha, Dr. Robert T. Ladd, and Dr. Kiwon Lee for their insightful suggestions and constructive guidance. Their invaluable input and interest improved my study immensely. I have greatly benefited from the support and friendship of my faculty members and colleagues in the Department of Retail, Hospitality, and Tourism Management at the University of Tennessee.

I am very grateful to my parents, my parents-in-law, and my two sisters, all of whom provided continuous encouragement and love throughout my graduate studies. Last but not least, I'd like to thank my beloved husband, Tae Hyun Baek, my precious daughter, Hailey, and my adorable son, Joshua. I am deeply indebted to your love, care, encouragement, prayer, support, and understanding through this remarkable experience. I am truly blessed for having all of you in my life.

## **ABSTRACT**

As a form of electronic word-of-mouth (eWOM), online consumer reviews have attracted increased attention from marketing researchers and practitioners. Given the importance of consumer online reviews in the tourism and apparel industries, the current study examined how contextual factor (temporal distance of consumption) and personal factor (chronic temporal orientation) moderate the effects of regulatory-focused online reviews on consumers' attitudinal and behavioral responses. Three web-based experiments were conducted to investigate the conceptual model using athletic shoes (Study1) and hotel (Study 2 and 3).

Study 1 showed that participants rated prevention-focused consumer reviews more favorably than promotion-focused consumer reviews when the purchase was temporally proximal. However, their attitudes toward consumer reviews were not significantly different when the purchase was temporally distant. Study 2 found that participants showed more favorable review attitude, brand attitude, and purchase intention when they read promotion-focused consumer reviews than prevention-focused consumer review under the temporally distant consumption. However, the differences between two types of reviews were not significant under the temporally consumption. Furthermore, review relevance fully mediated the effects of the interaction on dependent variables. The results of Study 3 indicated that future-oriented consumers showed more favorable review attitude, brand attitude, and a greater purchase intention when they read promotion-focused consumer reviews than when they read prevention-focused consumer reviews. On the other hand, the present-oriented consumers indicated more favorable brand attitude and a greater purchase intention after reading prevention-focused consumer reviews than after reading promotion-focused consumer reviews. Notably, the results

of Study 3 demonstrated that regulatory fit fully mediated the interaction effects on dependent variables.

This study will make several theoretical contributions to the literature on regulatory focus theory, construal level theory, and regulatory fit theory by providing empirical evidence of theoretical explanations within the context of online consumer reviews. The findings of the current study will also offer new guidelines for marketers in e-tourism and the apparel industry to segment their target audiences and revamp their product review platforms to suit consumer orientation.



## TABLE OF CONTENTS

<b>CHAPTER 1 INTRODUCTION</b>	1
Problem Statement	4
Purpose of the Study	5
Definitions of Terms	8
<b>CHAPTER 2 LITERATURE REVIEW</b>	10
Online consumer reviews	10
EWOM versus Traditional WOM	10
The Effectiveness of Online Consumer Reviews	12
Online Consumer Reviews in Tourism and Apparel Industry	13
Literature on Online Consumer Reviews	15
Limitations of Online Consumer Review Literature	18
Theoretical Framework	27
Regulatory Focus Theory	27
Regulatory Focus and Message Framing	28
Construal Level Theory	30
Temporal Distance	34
Hypotheses Development	36
Regulatory Fit: Regulatory Focus and Construal Level	36
The Mediating Role of Perceived Relevance	40
Temporal Orientation	42
The Mediating Role of Regulatory Fit	44
Effects of Regulatory Fit on Attitude Formation and Purchase Intention	45
<b>CHAPTER 3 CONTENT ANALYSIS AND PRETEST</b>	53
Stimuli Development	54
Product Selection	54
Development of Stimuli for Athletic Shoes: Content Analysis	54
Development of Stimuli for Hotel Reviews: Content Analysis	55
Pretest 1	60
Research Subjects and Procedure	60
Manipulation Checks	61
Pretest 2	64
Research Subjects and Procedure	64
Manipulation Checks	65
<b>CHAPTER 4 MAIN STUDY</b>	70
Study 1	71
Research Design and Subjects	72
Procedure	73
Stimulus Materials	74
Dependent Measures	75
Results	75
Discussion	79
Study 2	80
Research Design and Subjects	82

Procedure .....	82
Stimulus Materials .....	84
Dependent Measures .....	85
Results .....	87
Discussion .....	99
Study 3 .....	100
Research Design and Subjects .....	103
Procedure .....	105
Stimulus Materials .....	106
Dependent Measures .....	108
Results .....	110
Structural Equation Modeling .....	122
Discussion .....	128
<b>CHAPTER 5 DISCUSSION</b> .....	129
Overview .....	129
Discussion of Results .....	130
Contribution to the Literature .....	133
Implication for Practitioners .....	136
Limitations and Directions for Future Research .....	139
<b>REFERENCES</b> .....	142
<b>APPENDICES</b> .....	158
Appendix A: Stimuli and Questionnaire for Pretest 1 .....	159
Appendix B: Stimuli and Questionnaire for Pretest 2 .....	164
Appendix C: Stimuli and Questionnaires for the Main Study 1 .....	170
Appendix D: Stimuli and Questionnaires for the Main Study 2 .....	175
Appendix E: Stimuli and Questionnaires for the Main Study 3 .....	182
Appendix F: Consent Form .....	188
Appendix G: Human Subject Exemption Approval Form .....	190
Appendix H: Human Subject Exemption Approval Form .....	192
<b>VITA</b> .....	194

## LIST OF TABLES

Table 1. Literature Summary of Online Consumer Reviews .....	21
Table 2. Dimensions of Psychological Distance and Levels of Construal .....	33
Table 3. Summary of Hypotheses .....	51
Table 4. Qualitative Analysis (Athletic shoes) .....	56
Table 5. Qualitative Analysis (Hotel) .....	58
Table 6. T-test Result for Temporal Distance in Pretest 1 .....	62
Table 7. Examples of Regulatory-focused Consumer Reviews for Athletic Shoes .....	63
Table 8. T-test Result for Regulatory Focus in Pretest 1 .....	63
Table 9. T-test Result for Temporal Distance in Pretest 2 .....	66
Table 10. Examples of Regulatory-focused Consumer Reviews for Hotel .....	67
Table 11. T-test Result for Regulatory Focus in Pretest 2 .....	67
Table 12. Summary of Research Procedures .....	68
Table 13. Hypotheses of Study 1 .....	72
Table 14. Demographic Characteristics of Participants of Study 1 .....	73
Table 15. T-test Result for Temporal Distance Manipulation Check in Study 1 .....	75
Table 16. T-test Result for Regulatory Focus in Study 1 .....	76
Table 17. Two-way ANOVA Results for Review Attitude .....	77
Table 18. Planned Contrast Results for Interaction Effect on Review Attitude .....	77
Table 19. Summary of Hypotheses and Results (Study 1) .....	78
Table 20. Hypotheses of Study 2 .....	81
Table 21. Demographic Characteristics of Participants of Study 2 .....	83
Table 22. Measures and Scale Reliabilities .....	86
Table 23. T-test Result for Temporal Distance Manipulation Check in Study 2 .....	87
Table 24. T-test Result for Regulatory Focus in Study 2 .....	88
Table 25. Two-way ANOVA Results for Review Attitude .....	89
Table 26. Planned Contrast Results for Interaction Effect on Review Attitude .....	89
Table 27. Two-way ANOVA Results for Brand Attitude .....	90
Table 28. Planned Contrast Results for Interaction Effect on Brand Attitude.....	90
Table 29. Two-way ANOVA Results for Purchase Intention .....	92
Table 30. Planned Contrast Results for Interaction Effect on Purchase Intention.....	92
Table 31. Summary of Hypotheses and Results (Study 2) .....	98
Table 32. Hypotheses of Study 3 .....	102
Table 33. Demographic Characteristics of Participants of Study 3 .....	104
Table 34. Measures and Scale Reliabilities .....	109
Table 35. T-test Result for Regulatory Focus in Study 3 .....	110
Table 36. Two-way ANOVA Results for Review Attitude.....	112
Table 37. Planned Contrast Results for Interaction Effect on Review Attitude .....	112
Table 38. Two-way ANOVA Results for Brand Attitude .....	113
Table 39. Planned Contrast Results for Interaction Effect on Brand Attitude.....	114
Table 40. Two-way ANOVA Results for Purchase Intention .....	115
Table 41. Planned Contrast Results for Interaction Effect on Purchase Intention.....	115
Table 42. Summary of Hypotheses and Results (Study 3) .....	121
Table 43. Measurement Model Statistics.....	126

Table 44. Correlation Matrix .....	126
Table 45. Summary of Hypotheses and Results of SEM Analysis.....	127

## LIST OF FIGURES

Figure 1. Conceptual Framework .....	48
Figure 2. Conceptual Model of Study 1 .....	48
Figure 3. Conceptual Model of Study 2 .....	49
Figure 4. Conceptual Model of Study 3.....	49
Figure 5. Proposed Model of SEM .....	50
Figure 6. Word Cloud of Shoes Reviews.....	57
Figure 7. Word Cloud of Hotel Reviews .....	59
Figure 8. Conceptual Model of Study1 .....	71
Figure 9. Interaction Effect on Review Attitude.....	78
Figure 10. Conceptual Model of Study 2.....	80
Figure 11. Interaction Effect on Review Attitude .....	89
Figure 12. Interaction Effect on Brand Attitude .....	91
Figure 13. Interaction Effect on Purchase Intention .....	93
Figure 14. Mediated Moderation Model for Study 2.....	94
Figure 15. Mediated Moderation Model on Review Attitude.....	97
Figure 16. Mediated Moderation Model on Brand Attitude .....	97
Figure 17. Mediated Moderation Model on Purchase Intention .....	97
Figure 18. Conceptual Model of Study 3.....	101
Figure 19. Interaction Effect on Review Attitude .....	112
Figure 20. Interaction Effect on Brand Attitude .....	114
Figure 21. Interaction Effect on Purchase Intention .....	116
Figure 22. Mediated Moderation Model for Study 3.....	117
Figure 23. Mediated Moderation Model on Review Attitude.....	120
Figure 24. Mediated Moderation Model on Brand Attitude .....	120
Figure 25. Mediated Moderation Model on Purchase Intention .....	120
Figure 26. Proposed Model of SEM .....	123
Figure 27. Results of SEM.....	127

# **CHAPTER 1**

## **INTRODUCTION AND GENERAL INFORMATION**

When consumers make purchase decisions, they are often influenced by other consumers' recommendations. With the advent of information technology, consumers can share their opinions and read about prior consumers' experiences with products and services on various platforms, such as retailers' websites, online review sites, online discussion forums, blogs, social networking sites, and microblogs (Zhang, Cheng, & Lee, 2014; Utz, Kerkhof, & Bos, 2012).

As a form of electronic word-of-mouth (eWOM), online consumer reviews have been regarded as one of the most influential sources of information that directly affect product evaluations and purchase decisions (Chevalier & Mayzlin, 2006; Doh & Hwang, 2009; Duan, Gu, & Whinston, 2008; Kwon & Sung, 2012). Online consumer reviews are "peer-generated product evaluations posted on company or third party web-sites" (Mudambi & Schuff, 2010, p. 186). According to a recent industry survey, 52% of 5000 respondents from five countries indicated that online ratings and reviews on retailer websites were the most important influence on their purchase decisions, followed by information from friends and family members (49%) and information from store employees (12%). Based on consumer reviews, 65% of consumers actually selected brands they had not originally considered (Cisco Internet Business Solutions Group, 2013).

Since Amazon launched its review system in 1996, online consumer reviews have been increasingly available for a wide range of products, including music and books (Amazon.com), shoes (Zappos.com), consumer electronics (Shopping.com), news (Slashdot.org), hotels (Tripadvisor.com), and restaurants (Yelp.com) (Racherla, 2008). Reflecting marketers'

recognition that online reviews are important, several online review communities in the tourism industry have grown considerably over the past few years (Burton & Khammash, 2010). For example, Tripadvisor.com became one of the largest online review sites in the tourism industry, covering more than 150 million consumer reviews for over 3.7 million destinations worldwide. Between 2013 and 2014, its revenue jumped 26% to \$212.7 million (Travelweekly, 2014). Also, online consumer reviews have become increasingly important in the apparel industry, and most apparel companies now provide consumer reviews on their web and social media sites. Given the importance of consumer online reviews in the tourism and apparel industries, the current study will explore consumers' online review evaluation using a tourism product (i.e., hotels) and an apparel product (i.e., athletic shoes).

A specific focus of this study is the role of regulatory goals in online consumer reviews, which can be defined as “the process through which people set their goals, choose behavioral strategies to achieve these goals, and assess progress toward the goals” (Zhang, Craciun, & Shin., 2010, p. 2). According to regulatory focus theory, consumers are goal driven and make purchase decisions based on their consumption goals (Higgins, 1997). The theory divides goal attainment into two strategies: prevention focus and promotion focus (Higgins, 1997). That is, individuals with a prevention orientation focus on attaining safety and security, whereas individuals with a promotion orientation focus on achieving their hopes and aspirations.

Although regulatory goals exist in an individual as chronic trait, momentary situations such as message framing in online reviews can shift the emphasis on promotion benefits or prevention benefits (Kwon & Sung, 2012). For example, some online reviews may include information on how the athletic shoes are helpful in increasing their running power or promoting athletic performance (promotion-focused), whereas other online reviews may contain

information how the athletic shoes are useful in minimizing pains during running or preventing muscle strain (prevention-focused). Thus, the current study categorized online consumer reviews based on the regulatory focus distinction between prevention and promotion.

Most importantly, the current study emphasizes how contextual factor (i.e., temporal distance of consumption) and personal factor (i.e., temporal orientation) influence the way to evaluate online reviews. According to construal level theory, different temporal perspectives (i.e., whether an event takes place in near or distant future) change people's mental representations of future events: Events in the distant future tend to be represented in terms of abstract and central features at a higher level. Conversely, events in the proximal future are more likely to be represented in terms of concrete and peripheral features at a lower level (Liberman & Trope, 1988; Trope & Liberman, 2003). In terms of temporal distance and regulatory goals, prior literature has found that consumers tend to focus on promotion-focused goals for distant-future events, whereas they are more likely focus on prevention-focused goals for near-future events (Pennington & Roses, 2003). The regulatory fit literature has suggested that match between regulatory focus and temporal distance enhances consumers' attitude formation and behavior intention (Pennington & Roses, 2003). Taken together, it is expected consumers' favorable attitudes and positive behavior intention can be enhanced when there is a match between regulatory-focused consumer reviews (promotion vs. prevention) and temporal distance of consumption (distant vs. proximal).

Furthermore, individuals' chronic temporal orientation may also influence online review evaluation. Temporal orientation refers to the individual characteristics that distinguish individuals' tendency to immediate or future consideration (Strathman, Gleicher, Boninger, & Edwards, 1994). In general, it was found that individuals' temporal orientations moderate the



effects of ad message that are framed into regulatory goals on message persuasiveness, attitude formation, and behavior intention (e.g., Kees, 2011; Kees, Burton, & Tangari, 2010).

Based on regulatory focus theory, construal level theory, and regulatory fit theory, this study explored how consumers' online review evaluations may vary depending on contextual factor and personal factor. In particular, this study explored how temporal distance of consumption (contextual factor) and individuals' temporal orientation (personal factor) moderate the effects of online consumer reviews that are framed into regulatory goals on review attitude, brand attitude, and purchase intention.

### **Problem Statement**

Although a considerable amount of research has examined the effects of online consumer reviews on consumer decision making, a large portion of it has traditionally emphasized the importance of review valence (i.e., positive or negative) (Doh & Hwang, 2009; Park & Lee, 2009; Zhang, Craciun, & Shin, 2010) and review volume (Chen, Wu, & Yoon, 2004; Liu, 2006). Surprisingly, very few studies have examined the impact of consumers' self-regulatory goals on processing information from online consumer reviews.

Moreover, little research exists on how situational factors such as consumption time affect consumers' review evaluations. Although both time horizon and regulatory goals are key drivers of consumer behavior, they have remained largely unexamined in online review studies. Accordingly, the current study addressed questions concerning when different types of online consumer reviews are more influential across different consumption time frames (i.e., near- vs. distant-future).

Furthermore, no empirical research has shown how consumers' individual characteristics, such as temporal orientation, affect online consumer review evaluations. Prior studies have found that consumers' temporal orientation moderated ad message effectiveness (Kees, 2011; Kees et al., 2010). In particular, future-oriented individuals tend to weigh the future consequences of their behavior heavily when making decisions, thereby positively evaluating messages with temporally distant outcomes. In contrast, present-oriented individuals are less concerned about potential future consequences of behavior, thereby positively evaluating messages with temporally imminent outcomes (Kees, 2011).

### **Purpose of the Study**

The primary objective of this study is to examine whether and how the situation factor (i.e., temporal distance of consumption) affects consumers' attitude and behavioral intention contingent upon regulatory-focused online consumer reviews (i.e., prevention- or promotion-focused). According to construal level theory, different temporal distances from an event (whether near or distant future) influence information evaluation and decision making by systematically changing representations of that event (Liberman & Trope, 1988; Trope & Liberman, 2003). Drawing upon construal level theory, consumers are expected to evaluate promotion-focused consumer reviews that focus on maximizing positive outcomes more positively when considering distant-future consumption (e.g., trip for next year). On the other hand, they are more likely to be influenced by prevention-focused consumer reviews that focus on preventing negative outcomes when considering near-future consumption (e.g., trip for tomorrow).

Furthermore, the effects of regulatory focus on attitudinal and behavioral responses can vary according to individual characteristics such as chronic temporal orientation. Prior research has shown that various individual differences play an important role in influencing how advertising messages are processed (Bagozzi & Dholakia, 2002; Henning-Thuran, Gwinner, Walsh, & Gremler, 2004). However, few studies have addressed how individual characteristics affect decision making in the context of online consumer reviews. Accordingly, the current study examined how chronic temporal orientation that distinguished individuals' tendency to immediate or future consideration moderated the effects of regulatory-focused consumer reviews on online review evaluation.

In addition, this study investigated a novel mechanism underlying the interactive effects of regulatory focus and temporal distance by demonstrating that review relevance as the potential mediator can significantly contribute to consumers' attitudinal and behavioral response. According to Filieri and Mcleay (2014), "the extent to which a review is applicable and helpful for a task at hand depends on different customer needs in a specific situation" (p. 47); this idea is known as perceived review relevance. Prior studies have demonstrated that consumers tend to perceive online reviews as more relevant when the information matches their current needs, consequently leading to a positive effect on information processing and decision making (Filieri & Mcleay, 2014). Moreover, research has shown that people tend to experience regulatory fit when there is match between individuals' temporal orientation and regulatory focus, thereby enhancing their attitude toward the object and their purchase intention (Higgins, 2000; Lee & Aaker, 2004). Thus, regulatory fit was included as possible mediators in the hypothesized relationship.

Regulatory focus theory, construal level theory, and regulatory fit theory (Higgins, 2000) were used as theoretical frameworks in this study. Based on the literature review and the theoretical underpinnings presented in Chapter 2, this study examined the following:

1. How temporal distance moderates the effects of regulatory-focused consumer reviews on attitudinal and behavioral response.
2. How review relevance mediates the relationship between the interactive effects of regulatory-focused consumer reviews and contextual factor (i.e., temporal distance) on attitudinal and behavioral response.
3. How individual's temporal orientation moderates the effects of regulatory-focused consumer reviews on attitudinal and behavioral response.
4. How regulatory fit mediates the relationship between the interactive effects of regulatory-focused consumer reviews and individual factor (i.e., temporal orientation) on attitudinal and behavioral response.

## **Definitions of Terms**

The conceptual definitions of the constructs that were used in this study are defined as follows.

**Abstract:** Simple, less detailed and more intangible representations, not intimately bound to direct sensory perception (Liberian et al., 2007).

**Attitude:** An individual's favorable or unfavorable evaluation of an object, person, issue, or behavior (Fishbein & Ajzen, 1975).

**Concrete:** Features or mental processes characterized by literality and detail, which tend to be bound to the most immediate and obvious sense impressions, as well as by a lack of generalization and abstraction (Liberian et al., 2007).

**Consumer Information Processing:** Mental activities occurred in learning, evaluation, or decision process in a consumption context (Wilkie & Farris, 1976).

**Construal Level:** The degree of abstraction at which goal-directed actions are represented in the cognitive hierarchy (Liberian & Trope, 1998; Trope, Liberian, & Wakslak, 2007; Lee, Keller, & Sternthal, 2010).

**Electronic Word of Mouth:** "All informal communications directed at consumers through Internet-based technology related to the usage or characteristics of particular goods and services, or their sellers" (Litvin, Goldsmith, & Pan, p. 10).

**Online Consumer Reviews:** "Peer-generated product evaluations posted on company or third-party website" (Mudambi & Schuff, 2010. p. 186).

**Psychological Distance:** An individual's perception of their direct experience of reality in relation to time, space, social relationship and probability (Liberian et al., 2007).

Regulatory Focus Theory: Two major and different motivational approaches that people adopt when pursuing their goals: promotion focus and prevention focus (Mogliner, Aaker, & Pennington, 2008).

Review Relevance: “The extent to which a review is applicable and helpful for a task at hand depends on different customer needs in specific situation” (Filiari & Mcleay, 2014, p. 47).

Regulatory Fit: “The increased motivational intensity that results when there is a match between the manner in which a person pursues a goal and his or her goal orientation” (Aaker & Lee, 2006, p. 15).

Self-regulatory Goals: “The process through which people set their goals, choose behavioral strategies to achieve these goals, and assess process toward the goals” (Zhang et al., 2010, p. 2).

Temporal Distance: How much time distinguishes between the perceiver’s present time and the target event (Eyal, Liberman, & Trope, 2009).

Temporal Orientation: The extent to which people devote their attention to the present and future (Shipp, Edwards, & Lambert, 2009).

Traditional Word of Mouth: A face-to-face communication between consumers regarding brands, products, services or stores (Arndt, 1967).

## **CHAPTER 2**

### **LITERATURE REVIEW**

This chapter consists of three sections that provide the theoretical and conceptual framework for this study. The first section reviews the literature on consumer-generated information, including the differences between eWOM and traditional WOM, the effectiveness of online consumer reviews, and various considerations related to online reviews (e.g., volume, valence, and content). Limitations of extant literature on online consumer reviews and other contextual factors (e.g., time, goals, and consumer characteristics) that affect online review evaluation are also discussed in this section. The second section explains how regulatory focus theory, construal level theory, and regulatory fit theory are used as the theoretical framework for this study. The last section develops the research hypotheses and explains the conceptual model.

#### **Online Consumer Reviews**

##### **EWOM versus Traditional WOM**

Over the last few decades, traditional “Word of Mouth” (WOM) has been regarded as one of the most influential paths of information transmission that directly affect purchase decisions (Duan et al., 2008). WOM is defined as face-to-face communication between consumers regarding brands, products, services, or stores (Arndt, 1967). WOM includes positive, negative, or neutral information. Positive WOM might include “pleasant, vivid, and novel experiences, recommendations to others, and even conspicuous display” (Anderson, 1998, p. 6).

Negative WOM might include “product denigration, relating unpleasant experiences, rumors, and private complaining” (Anderson, 1998, p. 6). A significant number of studies have shown that WOM has a significant impact on consumer satisfaction (Srinivasan, Anderson, & Ponnnavolu, 2002), product evaluation (Bone, 1995), and consumer decision making process (Godes & Mayzlin, 2004; Henning-Thurau et al., 2004).

The rapid proliferation of information technology and the ubiquitous distribution of the Internet have transformed how consumers share information and communicate (Duan et al., 2008). As a product information source, eWOM plays a significant role in consumer decision making. EWOM can be defined as “all informal communications directed at consumers through Internet-based technology related to the usage or characteristics of particular goods and services, or their sellers” (Litvin, Goldsmith, & Pan, p. 10). This includes communications between consumers and producers as well as between consumers and consumers. Consumers nowadays can write about their experiences with brands, products, and services and read peer consumers’ evaluations on various platforms, such as online review sites, blogs, social network sites, brand communities, and discussion forums (Lee & Koo, 2012).

In several ways, eWOM is distinct from traditional WOM. First, the relationship between sources and receivers differs in terms of information flows. In eWOM, information flows among many people beyond physical, social, and cultural boundaries, whereas in traditional WOM, information flows within small groups or from one person to another (Chatterjee, 2001; Duan et al., 2008). The wider network of eWOM helps consumers gain more balanced, unbiased and up-to-date information from various types of consumers (Lee, Park, & Han, 2008; Senecal & Nantel, 2004).



Second, eWOM is more easily accessible and can be dispersed more widely than traditional WOM because consumers are able to access information on the Internet anytime and anywhere (Bakos & Dellarocas, 2011; Duan et al., 2008; Floyd et al., 2014). Using the various forms of eWOM, such as blogs, virtual brand communities, and social networking sites, consumers can share information with other people who live in another part of the world at any time (Kwon & Sung, 2012).

Last, eWOM lasts longer and hardly ever expires than traditional WOM. The information transmitted through eWOM represents a persistent and public record of everything that has been posted in online spaces (Dellarocas, Zhang, & Awad, 2007). On the other hand, information from traditional WOM persists only in the listener's memory and is difficult to record (Floyd et al., 2014; Granitz & Ward, 1996; Lee & Koo, 2012). Moreover, from the managerial perspective, information in online spaces can be monitored or sometimes controlled more easily than traditional WOM (Dellarocas, 2003).

### **The Effectiveness of Online Consumer Reviews**

Among the various sources of eWOM, consumers are more likely to rely on consumer-generated online reviews because they trust other consumers' actual experiences more than the information provided by advertisers or marketers (Lee & Youn, 2009; Sen & Lerman, 2007). Consumer-generated online reviews are more influential because consumers can catch the emotions conveyed by the description of actual experiences. According to a recent survey by eMarjeter (2013), 90% of consumers indicated that they preferred to read online consumer

reviews when shopping online, and 78% stated that online consumer reviews were an important factor in deciding whether to buy particular products and services.

A growing body of studies has confirmed that online consumer reviews have a significant impact on consumer decision making, product awareness and adoption, attitude change, brand trust, and purchase intention (e.g., Chen et al., 2004; Doh & Hwang, 2008; Park & Lee, 2009; Liu, 2006; Zhang, Craciun, & Shin, 2010). Specifically, positive online consumer reviews can enhance the perceived quality of a product, leading to more favorable attitudes (Liu, 2006). Also, information gathered from online consumer reviews enhance consumer awareness of and interest in a reviewed product, potentially leading to greater purchase intention (Chen et al., 2004).

### **Online Consumer Reviews in Tourism and Apparel Industry**

In the tourism industry, consumers can make travel plans, search travel-related information (e.g., hotels, attractions, and restaurants), and complete the booking process directly through travel review websites. A recent survey reported that about 87% of international travelers stated that they visited online review sites before booking hotels, and 43% indicated that other travelers' reviews directly affected their purchase intention (Valchos, 2012). The intangible and experiential nature of tourism-related products and services makes the online consumer reviews more influential because consumers cannot try them before they purchase or return them if the quality falls short of their expectations (Casalo, Flavian, Guinaliu, & Ekinci, 2015; Racherla, 2008). According to Nelson (1974), products can be classified into search and experience goods based on the consumers' ability to discover product quality before purchase. While the quality of a search product (e.g., vitamin) can be discovered by reading a product

description, the quality of an experiential product (e.g., hotel) is difficult to access before firsthand experience (Lee & Shin, 2014). In this regard, consumers tend to spend more time to achieve a greater depth of information for experiential products than for search products (Haung et al., 2009). This tendency implies that the perceived risk in buying tourism-related products and services is much higher than other products, making online consumer reviews more influential during the decision-making process (Racherla, 2008; Ye, Law, Gu, & Chen, 2011).

From the service provider's point of view, tourism-related products and services are seasonal and perishable, a trend that increases marketing stress levels (Lewis & Chambers, 2000; Racherla, 2008). Thus, tourism companies pay more attention to tracking and consolidating consumers' reviews to offer insights to potential consumers. Numerous studies have shown that online reviews influence hotel room sales (Vermeulen & Seegers, 2009; Ye et al., 2011) and increase information credibility (Dickinger, 2011; Gretzel & Yoo, 2008). Also, positive reviews improved travelers' attitude toward the hotel (Vermeulen & Seegers, 2009) and reduced their perceived risk when booking accommodations (Gretzel & Yoo, 2008).

Perceived risk when shopping online for apparel is also higher than other products (e.g., books and electronics) because of the consumer cannot inspect, feel, or touch the products (Kim & Damhorst, 2010). Although consumers can easily find information about various attributes (e.g., color, fabric, and price), they cannot decide whether to keep or return apparel products until they actually try them (Endo, Yang, & Park, 2012). In this perspective, the current study considers apparel product as an experiential good rather than a search good. Prior studies indicate that consumers' reviews reduced perceived uncertainty (Hu, Liu, Zhang, 2008), likely because they are regarded as more credible than market-provided information (e.g., expert opinion) (Park, Lee, & Han, 2007). A Cotton Incorporated survey in 2013 indicates that about

58% of U.S. apparel shoppers read other consumers' online reviews before they purchased apparel products from online retailers, and that 71% said these reviews were influential when shopping for clothing online. Despite the increased attention to online consumer reviews by retailers and consumers, relatively few studies have examined consumers' responses to online reviews in online apparel shopping environments.

## **Literature on Online Consumer Reviews**

Previous literature on online consumer reviews has mainly focused on four dimensions: (a) valence (i.e., positive vs. negative opinion), (b) volume (i.e., the number of online ratings or reviews), (c) content type (i.e., attribute-centric vs. benefit-centric, objective vs. subjective), and (d) product type (i.e., search goods and experience goods) (see Table 1 for the literature summary of online consumer reviews).

### ***Review Valence***

The most frequently researched topic in the online consumer review literature is review valence. Although this topic has been studied extensively, the results have been inconsistent. Some studies have found that positive reviews enhanced consumers' quality expectations and favorable attitudes toward the product (Doh & Hwang, 2009; Liu, 2006). Other studies suggested that negative reviews were stronger, more influential, and more difficult to resist than positive reviews (e.g., Casalo et al., 2015; Duan et al., 2008; Lee & Youn, 2009). For example, Calsalo et al. (2015) found that consumers perceived negative reviews as more useful than positive reviews, particularly high risk-averse travelers, who have a higher tendency to avoid uncertainty. Lee et al. (2008) indicated that potential loss messages were perceived to be more

trustworthy and influential than potential gain messages (Lee et al., 2008). The negativity bias effect can be explained with prospect theory (Kahneman & Tversky, 1979), which posits that consumer perception and decision making are more influenced by potential loss than an equivalent gain because the value function is steeper for loss. Zhang et al. (2010) further suggested that negative online reviews were more persuasive when consumers aimed to avoid negative end-states.

### ***Review Volume***

The number of consumer reviews is an important factor in persuasiveness and perceived uncertainty, whether those reviews are positive or negative (Lee & Koo, 2012). Previous literature has suggested that the volume of consumer reviews can increase awareness and perception of credibility for a product, potentially increasing sales (Anderson & Salisbury, 2003; Bowman, Douglas, & Narayandas, 2001; Chen et al., 2004; Duan et al., 2008; Khare, Labrecque, & Asare, 2011). For example, Duan et al. (2008) found that the volume of consumer reviews had a great effect on purchase decision by enhancing perception of product quality. Khare et al. (2011) pointed out that a higher volume of consumer reviews increased the persuasiveness and diagnosticity of eWOM. Additional studies have demonstrated that the volume of consumer reviews significantly influenced sales in movies (Duan et al., 2008) and automobile industry (Chen et al., 2004).

### ***Content Type***

Previous research has distinguished various online consumer reviews based on content type. For example, Park and Kim (2008) categorized reviews into two types: attribute-centric and benefit-centric. An attribute-centric review refers to consumer evaluations that are based on

the technical attributes of objects, whereas a benefit-centric review refers to subjective interpretations of those technical attributes. Park and Kim (2008) found that expert consumers showed stronger purchase intention when they read attribute-centric reviews. On the other hand, novice consumers revealed greater purchase intention when they read benefit-centric reviews. Similarly, Lee and Koo (2012) distinguished between objective and subjective reviews. Objective reviews are characterized by factual information, whereas subjective reviews are more personal and experience-based. For example, objective reviews might include information about price and product specifications, whereas subjective reviews are personal interpretations of experiences with a product. Lee and Koo (2012) demonstrated that objective and negative online reviews were more credible than positive and subjective reviews, which increase review adoption.

### ***Product Type***

Numerous studies have demonstrated that online review evaluations can vary by product type: search goods and experience goods (e.g., Lee & Shin, 2014; Wei et al., 2013). Search goods refer to products whose quality can be easily estimated based on information gathered before consumption (Nelson, 1974). For example, consumers can easily estimate the quality of electronic goods (e.g., calculator or computer printer) and vitamin pills by reading product-related information. On the other hand, experience goods refer to products whose quality is difficult to assess without direct experience (Nelson, 1974). Experience goods include books, music, wine, and tourism-related products/services. Consumer attention tends to have greater depth but smaller breadth in the search for experience products (Huang, Lurie, & Mitra, 2009). Therefore, the perceived risk in decision making is much higher for tourism products than for

other products (Ye, Law, Gu, & Chen, 2011). Pan and Zhang (2011) also investigated the effects of review characteristics (i.e., review valence and length), product type (i.e., experiential vs. utilitarian products), and reviewer characteristic (i.e., reviewer innovativeness) on review helpfulness. Their study found that positive review valence was more pronounced for experiential than utilitarian products. On the other hand, the effect of review length on perceived helpfulness was more prominent for utilitarian than experiential products. In the current study, both hotel and athletic shoes should be regarded as experiential goods because it is difficult to evaluate product quality before firsthand experience. Within the experiential product category, this study distinguishes hotel as a service good and athletic shoes as a consumer good. Although various studies examined the role of product types such as experiential good and service good in online review evaluation (Lee & Shin, 2014; Wei et al., 2013), there was no empirical research on the effects of online reviews across a service good and a consumer good.

### **Limitations of Online Consumer Review Literature**

While the majority of prior studies have focused on the effects of online consumer reviews characteristics (e.g., valence, volume, and content) on decision making, relative few studies have explicitly investigated other contextual factors, such as consumption goal and consumption time, that make online consumer reviews more helpful in the eyes of consumers (Pan & Zhang, 2011). In order to understand more fully how consumers make purchase decisions by reading different types of online reviews, such contextual factors need to be also considered.

### ***Consumption Goal***

Studies indicated that consumers evaluate product information to fulfill their consumption goals (i.e., promotion vs. prevention) (Higgins, 1997; Kwon & Sung, 2012; Zhang et al., 2010). In this process, consumers' self-regulation might affect consumers' online review evaluation (Zhang et al., 2010). Self-regulation can be defined as "the process through which people set their goals, choose behavioral strategies to achieve these goals, and assess progress toward the goals" (Zhang et al., 2010, p. 2). Based on regulatory focus theory (Higgins, 1997), Zhang et al. (2010) proposed the contextual factor–consumption goal that is associated with reviewed product–influences the effect of review valence on persuasiveness. In particular, the authors found that positive reviews were more persuasive for the product associated with promotion-focused goals (e.g., photo-editing software), whereas negative reviews were more persuasive for the product associated with prevention-focused goals (e.g. anti-virus software).

Furthermore, Kwon and Sung (2012) found that online review evaluation can be influenced by two self-regulatory strategies: prevention focus and promotion focus. They argued that consumers can evaluate products or make decisions based on information that addresses either promotion concerns (i.e., information that focuses on achieving positive outcomes) or prevention concerns (i.e., information that focuses on avoiding negative outcomes) (Aaker & Lee, 2001; Kwon & Sung, 2012; Lee & Aaker, 2004).

### ***Consumption Time***

Consumers often make decisions about future events. For example, consumers make vacation plans for the near or distant future and look for related information by reading other consumers' reviews on accommodations, transportation, and restaurants. With regard to consumption time, the temporal distance (near-future or distant-future) of an object or event



might influence information processing and decision making (Liberman & Trope, 1998). Recent studies have shown that consumers tend to have a lower construal level in processing information for near-future consumption (Castano, Mita, Manish, & Harish, 2006). A lower construal level is when people think concretely and is associated with psychological proximity and they tend to focus on the peripheral and secondary feature that are less essential (Liberman & Trope, 1998). Conversely, consumers are more likely to have a higher construal level in processing information for distant-future consumption (Thomas, Chandran, & Trope, 2007). Under the higher construal level, people think abstractly and they are more likely to emphasize on central features that capture the overall goals (Liberman & Trope, 1998).

Based on the time-contingent effects of recommendation and construal level theory, Zhang et al. (2010) argued that recommendation becomes more persuasive when there is a match in construal levels between temporal distance (i.e., near-future vs. distant-future) and social distance (i.e., close-others vs. distant-others). Specifically, they found that the recommendations of socially distant-others were more influential for distant-future consumption and that the recommendations of socially close-others were more influential for near-future consumption. Recently, Jin, Hu, and He (2014) examined how temporal distance affected responses to online consumer reviews posted at different times. They found that recent online reviews had more influence on near-future consumption decisions, whereas remote-past online reviews increased consumers' preferences for distant-future consumption decisions. Table 1 displays the literature summary of online consumer reviews.

Table 1. Literature Summary of Online Consumer Reviews

Authors (year)	Focus of Study	Theory/ Framework	Method	Sample Size	Independent Variable	Moderator	Dependent Variable	Findings
Casalo et al., (2015).	to better understand perceived usefulness of online consumer reviews.	Social cognitive theory, Signaling theory, Regulatory focus theory	2 experiments	Spanish travelers (experiment 1= 92, experiment 2= 165)	Review valance (positive vs. negative)	Consumer characteristic (high- vs. low-risk aversion), Source type (expert vs. non-expert reviews), Graphical content (product picture vs. none), Product familiarity (known vs. unknown)	Review usefulness	1) Negative online reviews are perceived to be more useful than positive reviews for high-risk-aversion travelers.  2) For positive reviews, high-risk averse travelers feel expert reviewers' postings, travel product pictures, and well-known brand names enhance usefulness of the positive online reviews.
Cheung & Rabjohn (2008).	to examine the extent to which opinion seekers are willing to accept and adopt online consumer reviews and which factors encourage adoption.	dual-process theories, information adoption model	Online survey	154 Adult consumers (community users)	Argument quality, source credibility		Information usefulness, information adoption	Comprehensiveness and relevance to be the most effective components of the argument quality construct of the research model, making them key influencers of information adoption.
Duan et al., (2008).	to explicitly model the positive feedback mechanism between WOM and retail sales and identify their dynamic interrelationship.		2 experiments		Review volume, review rating		box-office movie sales	1) Box office sales are significantly influenced by the number of online postings.  2) Rating of online user reviews have no significant impact on box office sales.

Table 1. Continued

Authors (year)	Focus of Study	Theory/ Framework	Method	Sample Size	Independent Variable	Moderator	Dependent Variable	Findings
Filieri & Mcleay. (2013)	to identify what influences travelers to adopt information from online reviews in their decision making.	Elaboration likelihood model	Mail survey	Convenient sample of academic and administrative staff (n=565)	Information relevance, information understandability, Information accuracy, Information completeness, Information value-added, Information timeliness, Information quantity, Involvement		Information adoption	<p>1) Revealed that product ranking, information accuracy, information value-added, information relevance, and information timeliness are strong predictors of travelers' adoption of information from online reviews on accommodations.</p> <p>2) high-involvement travelers adopt both central (information quality) and peripheral (product ranking) routes when they process information from ORs.</p>
Kwon & Sung. (2012).	to examine the interactive effects of self-construal and self-regulatory goals can vary according to product categories.	Regulatory focus theory	Online experiment	Convenient sample (experiment 1=101 college students, experiment 2 = 81 college students)	Self-regulatory goals (prevention vs. promotion)	Self-construal (independent-self view vs. interdependent-self view)	Review attitude, brand attitude, and purchase intention	<p>1) Individuals whose independent self-view is temporarily more activated rate product reviews with promotion goals as more effective than those with prevention goals.</p> <p>2) However, the reverse pattern for individuals whose interdependent self-view is temporarily primed was supported only by the results of Experiment 1.</p>
Lee & Koo. (2012).	to test the effects of review valence and attributes on credibility, the moderating role of regulatory focus and subjective knowledge.	Regulatory focus theory	Online experiment	Convenient sample (319 college students)	Review valence, attributes	Regulatory focus, subjective knowledge	Credibility	<p>1) Objective and negative online reviews have a significant positive and negative impact, respectively, on message credibility, which affects review adoption.</p> <p>2) The moderating effect produced by objective information and a consumer's subjective knowledge is supported.</p>

Table 1. Continued

Authors (year)	Focus of Study	Theory/ Framework	Method	Sample Size	Independent Variable	Moderator	Dependent Variable	Findings
Lee & Shin. (2014),	(a) how the quality of online product reviews affects the participants' acceptance of the reviews as well as their evaluations of the sources and (b) how such effects vary depending on the product type and the availability of reviewers' photos.		Online experiment	Convenient sample (252 undergraduate students)	Review quality	Product type (experience goods vs. search goods), Reviewer's photo	Information adoption	<p>1) After reading overall positive reviews, those exposed to the high-quality (vs. low-quality) reviews evaluated the product more positively, which in turn, led to a stronger purchase intention.</p> <p>2) Review quality also had a negative direct effect on the purchase intention for the experience good, with no corresponding effect for the search good.</p>
Li et al., (2013).	to examine the impact of review abstractness on perceived review helpfulness.		Laboratory experiment	120 working professional in China	Content abstractness (abstract vs. concrete)	Source types (expert vs. consumer)	Product review helpfulness	<p>1) Consumer product reviews were more helpful than those written by experts.</p> <p>2) Consumer product reviews with a low level of content abstractness yield the highest review helpfulness.</p>
Park et al., (2007).	to investigate whether the quantity and quality of online consumer reviews can affect consumers' purchasing intention and how these effects are changed by consumer involvement.	Elaboration likelihood model	Online experiment	Convenient sample (352 undergraduate students)	Review quality	Involvement	Purchase intention	<p>(1) The quality of on-line reviews has a positive effect on consumers' purchasing intention.</p> <p>(2) Purchasing intention increases as the number of reviews increases.</p> <p>(3) Low-involvement consumers are affected by the quantity rather than the quality of reviews, but high-involvement consumers are affected by review quantity mainly when the review quality is high.</p>

Table 1. Continued

Authors (year)	Focus of Study	Theory/ Framework	Method	Sample Size	Independent Variable	Moderator	Dependent Variable	Findings
Park & Park. (2013).	to test how the impacts of review variance can vary depending on product type, the argument quality of product. reviews, and the number of reviewers.		Three laboratory experiments	Convenient sample (experiment 1=160, experiment 2=160, experiment 3=144)	Review variance (high-variance vs. low-variance)	Product type (experience vs. search), Review characteristics, number of reviewers	Product evaluation	1) High-variance product reviews are more likely than low-variance product reviews to undermine product evaluation when consumers have unfavorable prior expectation about a product.  2) When consumers have favorable prior expectation, high-variance product reviews can enhance or undermine product evaluation depending on product category, the argument quality of reviews, and the number of reviewers.
Racherla . (2008).	to examine the factors that drive the consumers develop trust and their purchasing decisions on the information gleaned from the review systems.	Uncertainty reduction theory and Social identity theory, elaboration likelihood model,	Quasi-experimental design	Convenient sample (283 undergraduate students)	information content, social component within-subjects	Involvement	Trust, purchase intention	1) Information content of the review, and the consumers' perceived social identity with the reviewer contribute to an increased trust in the reviews.  2) The study data did not support the hypothesis that involvement of the activity moderates the above mentioned relationships.
Sen & Lerman. (2007).	to investigate the negativity effect in e-WOM consumer reviews for utilitarian vs. hedonic products and examine the impact of the reader's attributions regarding the reviewer's motivations.		Observation study, two laboratory experiments	Convenient sample (experiment 1=137, experiment 2= 120)	Review valence (positive vs. negative)	Product type (utilitarian vs. hedonic)	Attribute toward the review	1) Product type moderates the effect of review valence, and readers exhibit a negativity bias for utilitarian product reviews only.  2) The reader's attributions about the motivations of the reviewer mediate the effect of this moderation on their attitude about the review.

Table 1. Continued

Authors (year)	Focus of Study	Theory/ Framework	Method	Sample Size	Independent Variable	Moderator	Dependent Variable	Findings
Sparks et al., (2013).	to test how source, content style, and peripheral credibility cues in online postings affect consumer beliefs, attitudes and purchase intentions for an eco-resort.	Heuristic-system theory, attitude formation theory	Online experiment	537 community members	Content (specific vs. vague)	Source type (manager vs. customer), credibility cues (green eco-certification logo vs. both a green and a gold log for a service quality award)	Attitude toward the resort, quality beliefs, trust beliefs, utility of review beliefs, corporate social responsibility beliefs, and purchase intention	1) The interactions are complex, but broadly tourists treat specific information posted by customers as most useful and trustworthy.  2) Their purchase intentions are influenced principally by their overall attitude toward the resort and their beliefs in its corporate social responsibility.
Vermeulen & Seegers. (2008).	to test of three key elements in online reviews: review valence, reviewer expertise, and consumer familiarity with the reviewed object.	Consideration set theory	Online experiment	168 Adult consumers	Review exposure (pre- vs. post-review)	Review valence, Hotel familiarity, review expertise	Hotel awareness, attitude, consideration	1) Positive as well as negative reviews increase consumer awareness of hotels, whereas positive reviews, in addition, improve attitudes toward hotels.  2) These effects are stronger for lesser-known hotels. Reviewer expertise has only a minor – positive – influence on review impact.
Wei & Lu. (2013).	to explores the relationship between information valence and the perceived helpfulness of online reviews.	AIDMA (Attention, Interest, Desire, Memory, and Action) model, AISAS (Attention, Interest, Search, Action, and Share) model	Online experiment	176 Adult consumers	Type of endorser (celebrity vs. consumer)	Type of product (search-shoes, vs toner-experienced)	Attention, Interest, Desire, Memory, Search, Share, Action	1) Search good (shoes) endorsed by a celebrity in an advertisement evoked significantly more attention, desire, and action from the consumer online review.  2) Consumer reviews emerged higher than the celebrity endorsement on the scale of participants' memory search, and share attitudes toward experience good (toner).

Table 1. Continued

Authors (year)	Focus of Study	Theory/ Framework	Method	Sample Size	Independent Variable	Moderator	Dependent Variable	Findings
Wu. (2013). PM	to investigate the extent to which the qualitative characteristics of reviews moderate the effect of negativity bias in evaluating the helpfulness of reviews.		Content analysis, 2 online experiments	Content analysis (44,328 book reviews), experiment 2 (292 Mturk samples), experiment 3 (205 Mturk samples)	Content (specific vs. vague)	2 (reputation: high, low)	Perceived helpfulness	<p>1) Negative reviews are no more helpful than positive ones when controlling for review quality.</p> <p>2) The lack of negativity bias in evaluating the helpfulness of online reviews.</p> <p>3) The negativity effect can be reversed by manipulating the baseline valences.</p>
Zhang et al., (2010).	to examine the persuasiveness of eWOM.	Regulatory focus theory	Lab experiment, content analysis	Lab experiment (150 college students), Content analysis (27,985 review helpful ratings)	Review exposure (pre- vs. post-review)	Consumption goals (promotion vs. prevention), Star ratings	Review persuasiveness, Review helpfulness	<p>1) Consumers who evaluate products associated with promotion consumption goals perceived positive reviews to be more persuasive than negative one.</p> <p>2) Consumers who evaluate product related to prevention goals perceive negative reviews to be more persuasive than positive one.</p>
Zhu & Zhang. (2009).	to examine how product and consumer characteristics moderate the influence of online consumer reviews on product sales.	Psychological choice model	Content analysis	220 game sales and online reviews	Type of endorser (celebrity vs. consumer)	Product popularity, Consumer internet experience	Product sales in video game industry, Purchase intention	<p>1) Online reviews are more influential for less popular games and games whose player have greater Internet experience.</p>

## **Theoretical Framework**

### **Regulatory Focus Theory**

Regulatory focus theory (Higgins, 1997), which is derived from the hedonic principle that people are motivated to seek pleasure and avoid pain, is commonly used as a theoretical framework for understanding people's motives and goal orientations. The theory posits that self-regulation works differently when serving the fundamentally different needs of nurturance and security by viewing self-regulation as a process by which people seek to align their behavior with relevant goals (Higgins, 1997).

The basic premise of this theory is that people strive to achieve their goals through two distinct regulatory strategies: promotion focus and prevention focus (Higgins, 1997). To illustrate, individuals with a promotion focus are inclined to attain achievement and maximize positive outcomes by approaching matches to the desired end state, whereas individuals with a prevention focus are geared to achieve safety and minimize negative outcomes by avoiding mismatches to the desired end state. These two distinct goal types are likely to result in different consequences.

Namely, prevention-focused individuals emphasize concrete and detailed information and focus on safety and security (i.e., oughts). In contrast, promotion-focused individuals focus on abstract and general representation of a task and emphasize aspirations and achievements (i.e., ideals) (Lieberman, Idson, Camacho, & Higgins, 1999). That is, promotion-focused individuals are more likely to be sensitive to positive outcomes, and prevention-focused individuals are more likely to respond to negative outcomes (e.g., Aaker, & Lee, 2001; Higgins, 1997).



## **Regulatory Focus and Message Framing**

Regulatory goals are based on particular interests or concerns that lead to behaviors (Avnet & Higgins, 2006). Prior literature has suggested that regulatory goals can be induced by momentary situations, such as message frames that emphasize promotion benefits (e.g., enhancement) or prevention benefits (e.g., protection). In other words, while self-regulatory goals exist in individuals as chronic traits, they can also be situationally induced by reading regulatory focus messages.

For example, Aaker and Lee (2001) manipulated the regulatory goals by showing two ad messages: promotion and prevention focus. The promotion-framed message highlighted the positive outcome achieved by drinking Welch's Grape Juice (e.g., increasing energy). The prevention-framed message emphasized avoiding the negative consequence by drinking Welch's Grape Juice (e.g., avoiding heart disease). They found that people were more affected by one message frame or another (i.e., prevention- or promotion-focused) depending on which one was more relevant to their regulatory orientations (i.e., interdependent self-view or independent self-view) at the time. Specifically, individuals with interdependent self-view, which refer to the view of oneself as being well maintained by others rather than desiring to be distinguished from others, are more persuaded by prevention-focused message. In contrast, individuals with independent self-view, which refer to the view of oneself as being defined by unique attributes and characteristics that distinguish from others, are more persuaded by promotion-focused message (Aaker & Lee, 2001).

Also, regulatory focus can be manipulated using a priming task that asks participants to think about and write down either their hopes/aspirations or duties/obligations (i.e., reporting

method). This manipulation is based on the fact that self-regulation in terms of hopes and aspirations can be linked to promotion goals, while self-regulation in terms of duties and obligations can be linked to prevention goals (Higgins, 1997). For the promotion-focused condition, participants are asked to consider their ideals, hopes, and aspirations and list two of them. For the prevention-focused condition, participants are asked to think about their duties, responsibilities, and obligations, and list two of each. This priming manipulation is designed to differentiate between people's promotion goal orientation (i.e., ideals) and prevention goal orientation (i.e., oughts) (Freitas & Higgins, 2002).

Regulatory focus goals can be applied to online consumer reviews. When consumers evaluate consumer reviews, those reviews might activate the regulatory systems that are congruent with their self-regulatory goals. For example, one is more likely to be influenced by promotional information about achieving desired outcomes, and the other is more likely to be affected by prevention information about avoiding undesirable outcomes (Zhang et al., 2010). That is, consumers read online product reviews either to enhance positive consumption outcomes, such as achievement, advancement, and aspiration, or to avoid negative consumption outcomes, such as dissatisfaction and misjudgment.

Recently, Kwon and Sung (2012) examined how consumers differently evaluate consumer reviews framed by regulatory focus depending on their temporally primed self-construal (independent self-view vs. interdependent self-view). Drawing upon regulatory focus theory, they categorized review types into prevention- and promotion-focused. Specifically, the promotion-focused online reviews depicted how to maximize positive outcomes in the context of a digital camera: "I wanted to take the nicest pictures and capture breath-taking moments" (p. 78). On the other hand, the prevention-focused online reviews described how to minimize the

negative outcomes: “I wanted to prevent blurred pictures and avoid not capturing important moments” (p. 78). They found that individuals with an independent self-view showed more favorable attitudes and purchase intention when they read prevention-focused reviews than the promotion-focused reviews, whereas the converse was found for those with an interdependent self-view (Kwon & Sung, 2012). Furthermore, prior studies also indicate that consumers tend to construe information at a lower construal level when they read prevention-focused messages, whereas they are more likely to construe information at a higher construal level when they read promotion-focused messages (e.g., Lee et al., 2010; Liberman et al., 1999).

### **Construal Level Theory**

Do we buy products differently when we think of using them in the near future or distant future (e.g., a dress for tonight versus a dress for next month)? Do we buy products differently when we buy them for another person or for our own use? These questions address the effect of psychological distance on consumer behavior (Eyal et al., 2009).

Construal level is defined as “the degree of abstraction at which goal-directed actions are represented in the cognitive hierarchy” (Nenkov, 2012, p. 4). Construal level theory posits that individuals construe different representations of events/objects in their environment and these representations vary in degrees of abstraction (Liberman & Trope, 1998; Kim & John, 2008). That is, individuals with abstract mental models are more likely to construe information at a higher level, thereby focusing on superordinate and essential features of object/events. In contrast, individuals with concrete mental models tend to construe information at a lower level, thereby focusing on subordinate and incidental features of objects/events (Albisson, Burman, &

Das, 2010). For example, people with high-level construal might represent their behaviors in general terms, such as “I had fun last weekend.” However, people with low-level construal might reflect on their behavior in more detail: “My children and I played baseball at Mcfee Park last Sunday.”

In addition to individual differences, situational factors can affect construal levels (Kim & John, 2008). For example, Trope and Liberman (2003) found that individual construal levels can be systematically activated by manipulating psychological distance. In general, the perception of felt distance is referred as psychological distance. Increasing psychological distance leads to a higher-level construal, involving more abstract, gentle, and simple mental representations, whereas decreasing psychological distance leads to a lower-level construal, involving more concrete and complex mental representations (Trope & Liberman, 2003).

Some experimental protocols can be applied to manipulate construal level and psychological distance. To prime construal level, participants in the high-level construal condition can be asked to report “why” they would perform a certain action (e.g., health improvement). In the low-level construal condition, participants can be asked to report “how” they would engage in the same activity (Cheema & Patrick, 2008). Similarly, construal level can be manipulated using hypothetical scenarios. For example, after reviewing a series of written scenarios (e.g., an argument with a friend or a job interview), participants in the high-level construal condition were asked to think about why this event (induced by the scenario) happened and to analyze the causes, meanings, and implications of the event. In contrast, participants in the low-level construal condition were asked to think about how this event happened and to analyze the causes, meanings, and implications of the event (Watkins, Moberly, & Moulds, 2008).

According to Eyal et al. (2009), construal levels pertain to the psychological distance between the perceiver and the target. There are four dimensions of psychological distance: (a) temporal—how much time separates the perceiver’s present time and the target event (e.g., a week vs. a year); (b) spatial—how far in space is the target from the perceiver (e.g., next door vs. in another building); (c) social—how distinct is the social target from the perceiver’s self (e.g., self vs. others, friend vs. stranger); and (d) hypothetical—how close is the target to reality (likely vs. less likely, realistic vs. fantastic) (Eyal et al., 2009).

With respect to temporal distance, the same information is construed at a higher level (in a more abstract manner) when the events will occur in the distant future rather than in the near future. Accordingly, people have different mental representations of the same information depending on the time frame in which the object/event will occur (i.e., near or distant future). For near-future events, people tend to have access to more information and construe the events at a lower level (in a more concrete manner) (Albisson et al., 2010). In terms of spatial distance, people are more likely to engage with high-level construal when events will occur in a broader area (e.g., across the nation) than in a narrower area (e.g., a local park). For social distance, people tend to make more global, dispositional attributions toward others’ behavior than toward their own. In terms of hypothetical distance, people are broader in their categorization of an event when the probability of the event is low (Eyal et al., 2009).

In sum, the greater the psychological distance, the more likely consumers are to engage in high-level construal than low-level construal. Table 2 summarizes the four dimensions of psychological distance (temporal, spatial, social, and hypothetical) and characteristics of construal levels (lower- vs. higher).

Table 2. Dimensions of Psychological Distance and levels of Construal

Four Dimensions of Psychological Distance		
Temporal	How much time distinguishes between the perceiver’s present time and the target event (e.g., in a week vs. in a year)	
Spatial	How distal in space is the target from the perceiver (e.g., next door vs. in another building)	
Social	How distinct is the social target from the perceiver’s self (e.g., self vs. others, friend vs. stranger)	
Hypothetical	How close it is to reality (likely vs., less likely, realistic vs. fantastic)	
Levels of Construal		
Lower-level Construal		Higher-level Construal
Characteristics	<ul style="list-style-type: none"><li>• Concrete and complex mental representations</li><li>• Easy to imagine-visualize</li><li>• Subordinate goals and feature (e.g., why goals, desirability of outcomes)</li><li>• Secondary (surface) feature</li><li>• Contextualized</li></ul>	<ul style="list-style-type: none"><li>• Abstract and simple representation</li><li>• Difficult to imagine-visualize</li><li>• Superordinate goals and features (e.g., instrumental means feasibility of outcomes)</li><li>• Primary (core) features</li><li>• Decontextualized</li></ul>
Antecedents	<ul style="list-style-type: none"><li>• Low sensory distance (e.g., mere presence, first-hand experience)</li><li>• Low spatial distance (e.g., nearby location)</li><li>• Low temporal distance (e.g., near future, recent past)</li></ul>	<ul style="list-style-type: none"><li>• High sensory distance (e.g., verbal representation, second-hand experience)</li><li>• High spatial distance (e.g., distant location)</li><li>• High temporal distance (e.g., distant future, distant past)</li></ul>
Consequences	<ul style="list-style-type: none"><li>• Immediate, obvious, and direct implication for behavior</li></ul>	<ul style="list-style-type: none"><li>• Distant, nonobvious, and indirect implication for behavior</li></ul>

## **Temporal Distance**

In light of construal level theory, the current study proposed temporal distance of consumption time (i.e., near- vs. distant-future) as a key moderator that affects consumers' responses toward regulatory-focused consumer reviews. Temporal distance is referred as the degree to which people account for events that occur in the future. The distance that people perceive objects or events, which can be explicit (such as a specific amount of time), can affect their perceptions and decision making (Liberman & Trope, 1998). As one of the psychological distance dimensions, temporal distance can be manipulated by asking participants to imagine themselves in a situation in which they need to make a decision either tomorrow (in the near-future) or a year from now (in the distant-future). For example, participants in the near-future condition can be presented with a written description of a virtual course and imagine themselves making the decision to register for the course "tomorrow." In contrast, participants in the distant-future condition can be instructed to imagine themselves making the decision to enroll in the course "next year." As temporal distance increases, people show more preference for high-level construal values by considering a broader ground of assessment with a fundamental and abstract nature. On the other hand, as temporal distance decreases, people prefer low-level construal values by highlighting more specific and circumstantial properties (Kim & Han, 2015; Liberman & Trope, 1998).

Temporal distance is a widely examined dimension of psychological distance in the literature. Numerous studies have shown that temporal distance influences product choice and preference (e.g., Kardes, Cronley, & Kim, 2006), information processing (e.g., Kim & Han, 2015; Liberman & Trope, 1998), and behavioral intention (e.g., Eyal et al., 2009). For example,

Kim and Han (2015) found that people focused on central information about products/services for purchasing in the distant future (i.e., their natural construal level was high); conversely, they focused on peripheral information about products/services for purchasing in the near future (i.e., their natural construal level was low).

A significant number of studies have also shown that temporal distance influences how consumers process information from various types of persuasive messages. Liberman and Trope (1998) found that individuals gave more weight to desirability (a promotion-focused concern) when making decisions about distant-future events than about near-future events. In contrast, individuals put more weight on feasibility (a prevention-focused concern) for near-future events (Liberman & Trope, 1998). White, Macdonnell, and Dahl (2011) examined the interactive effect of construal level (high vs. loss) and message framing (gain vs. loss) on recycling intention. They demonstrated that gain-framed messages were more effective than loss-framed messages for distant-future consumption, which leads a greater recycling intention. On the other hand, the reverse pattern occurred for near-future consumption.

Recently, Jin et al. (2014) examined the time-variance effects of online consumer reviews. They suggested that consumers tend to have lower-level construal when they anticipate near-future consumption. In contrast, consumers are more likely to operate at a higher level of construal when they anticipate distant-future consumption. Building on the theory of temporal distance and construal fit, they found that recent online reviews were more effective in shifting consumer preference toward near-future consumption, whereas older online reviews are more influential in enhancing consumer preference toward distant-future consumption. Based on the previous literature, it is suggested that consumers are more likely to process information about



products/services at a high construal level for distant-future consumption and a low construal level for near-future consumption.

## **Hypotheses Development**

### **Regulatory Fit: Regulatory Focus and Construal Level**

According to regulatory fit theory, individuals experience a sense of regulatory fit when they engage in decisions or choices that are compatible with their regulatory orientation (Lee & Higgins, 2009; Lee et al., 2010). Regulatory fit can be defined as “the increased motivational intensity that results when there is a match between the manner in which a person pursues a goal and his or her goal orientation” (Aaker & Lee, 2006, p. 15). For example, individuals with a promotion focus tend to experience fit when they adopt an eager strategy that focuses on the strategic means of advancement and accomplishment to pursue their goals. In contrast, individuals with a prevention focus are more likely to experience regulatory fit when they adopt a vigilant strategy that focuses on the strategic means of avoiding mistakes and losses to pursue their goals (Lee & Higgins, 2009; Lee et al., 2010). Similarly, prior studies pointed out that promotion-focused individuals tend to experience regulatory fit when they are exposed to messages that construe the means of goal pursuit at a high level. (Freitas & Higgins, 2002; Lee & Higgins, 2009; Lee et al., 2010). Conversely, prevention-focused individuals are more likely to experience regulatory fit when they are exposed to message that construe the means of goal pursuit at a low level (Freitas & Higgins, 2002; Lee & Higgins, 2009; Lee et al., 2010). Lee et al. (2010) demonstrated that regulatory fit between an individual’s regulatory focus and construal

level led to more favorable attitudes toward the advertised product or brand. Specifically, they found that people showed more favorable attitudes toward the product or brand when the information was construed at a level that fit their regulatory focus.

The relationship between regulatory focus and temporal distance has been examined in previous studies (Khajehzadeh, Oppewal, & Tojib, 2014; Lee et al., 2010; Pennington & Roses, 2003). Temporal distance to a goal can affect perceptions and attitudes toward goal-related messages that are framed in terms of promotion or prevention and influence how motivational orientations shift between regulatory focus goals (Khajehzadeh et al., 2014). In light of evidence supporting the relationship between regulatory focus and temporal distance, Pennington and Roses (2003) suggested that people tend to focus on promotion-focused goals for distant-future events, whereas they are more likely to emphasize prevention-focused goals for near-future events. Specifically, a relatively greater emphasis on promotion-focused goals for distant-future events increased enthusiasm and desirability. In contrast, a relatively greater emphasis on prevention-focused goals for near-future events enhanced anxiety and feasibility. Similarly, Mogilner et al. (2008) found that prevention-focused products were preferred for near-future consumption, whereas the reverse pattern occurred for those considering promotion-focused products. Consistent with these aforementioned results, the current study proposed that consumers might experience regulatory fit when there is a match between regulatory-focused consumer reviews and temporal distance of consumption. Specifically, consumers are likely to evaluate promotion-focused consumer reviews more positively than prevention-focused consumer reviews for distant-future consumption, whereas they are likely to evaluate prevention-focused consumer reviews more positively than promotion-focused consumer reviews for near-future consumption.

Regulatory fit causes people “to feel right” about what they are doing, consequently intensifying evaluation of their goals and their decision outcomes (Avent & Higgins, 2006). Feeling right can serve as “one piece of information” that combines cognitive and affective responses to a target event or object (Higgins, 2000). Therefore, experiencing regulatory fit leads to more favorable evaluations of message advocacy and intensifies reactions such that positive reactions become more positive and negative reactions become more negative (Aaker & Lee, 2006; Lee et al., 2010).

Numerous studies have demonstrated the effects of regulatory fit on message persuasiveness (Kim, 2006), attitude toward a brand (Keller, 2006; Labroo & Lee, 2006; Lee & Aaker, 2004; Lee et al., 2010; Wang & Lee, 2006), willingness to pay for the offered product (Avent & Higgins, 2006; Higgins et al., 2003), and purchase intention (Avent & Higgins, 2006). For example, Lee et al. (2010) found that regulatory fit between regulatory focus and construal level of message concreteness led to more favorable attitudes toward the advertising and the advertised brand. They suggested that the fit between individuals’ regulatory goals (primed with information) and construal level enhanced the subjective experience of engagement and intensified reactions (Lee et al., 2010). Wang and Lee (2006) demonstrated that individuals paid more attention to information that fit their regulatory focus, which in turn, affected their attitude toward product and brand. Evans and Petty (2003) found that people were more likely to elaborate on message content that matched their self-regulatory goals. In the context of health communications, adolescents perceived anti-smoking messages as more believable and persuasive when their self-regulatory goals and the message frame were congruent (Kim, 2006). Furthermore, Shah, Higgins, and Friedman (1998) found that individuals performed better on given tasks when monetary incentives were compatible with their self-regulatory goals.

Specifically, those with a promotion focus responded more easily to promotion-framed task incentives, whereas those with a prevention focus responded more easily to prevention-framed task incentives.

Regulatory fit theory provides a theoretical basis for testing hypothesized relations between regulatory-focused online consumer reviews and temporal distance of consumption. First, according to regulatory focus theory, individuals' self-regulatory goals can be induced by momentary situations, such as message frames that emphasize promotion benefits (e.g., enhancement) or prevention benefits (e.g., protection). When people read other consumers' online reviews, they can make decisions based on information that addresses either promotion concerns (i.e., information that focuses on achieving positive outcomes) or prevention concerns (i.e., information that focuses on avoiding negative outcomes) (Aaker & Lee, 2001; Kwon & Sung, 2012; Lee & Aaker, 2004).

Second, it is expected that the consumers' online review evaluations will vary depending on the temporal distance of consumption. According to the construal level theory, consumers tend to construe information at a low level for near-future consumption, making prevention-focused consumer reviews (i.e., avoiding negative outcomes) more influential than promotion-focused consumer reviews (enhancing positive outcomes). In contrast, consumers tend to construe information at a high level for distant-future consumption, making promotion-focused consumer reviews more influential than prevention-focused consumer reviews. Based on previous research in regulatory focus, construal level, and regulatory fit theory, consumers' attitude formation and purchase intention are likely to be enhanced when temporal distance and regulatory focus are congruent.

*Hypothesis 1. The temporal distance of consumption will moderate the effects of regulatory-focused consumer reviews on (a) review attitude, (b) brand attitude, and (c) purchase intention.*

*1) When a purchase is temporally distant, promotion-focused consumer reviews will lead to more favorable (a) review attitude, (b) brand attitude, and (c) purchase intention.*

*2) When a purchase is temporally proximal, prevention-focused consumer reviews will lead to more favorable (a) review attitude, (b) brand attitude, and (c) purchase intention.*

### **The Mediating Role of Perceived Relevance**

What is the mechanism underlying the interactive effects of regulatory focus and temporal distance? Current research highlights review relevance as a mediator that can significantly shape more favorable attitudes and behavioral intention. Review relevance is defined as the extent to which online reviews are perceived more applicable and helpful for customers' needs in specific situation (Filiery & Mcleay, 2014, p. 47).

Studies indicate that people put more weight on information that is relevant to their regulatory orientation and psychological state (Aaker & Lee, 2001; Zhao & Xie, 2011). For example, Aaker and Lee (2001) suggested that the persuasive effects of regulatory-focused messages varied depending on which features were more relevant to self-regulatory goals. In particular, they found that individuals with an independent self-view (interdependent self-view)

regarded the message as more relevant to them when it implied a promotion goal (prevention goal). In the context of online consumer reviews, Filieri and Mcleay (2014) pointed out that consumers considered reviews more relevant when the information matched their current needs. For example, people who are planning a honeymoon might be more interested in information about luxury hotels situated in a quiet area with romantic services. They found that review relevance was a strong predictor of travelers' adoption of online reviews on accommodations (Filieri & Mcleay, 2014).

The current study proposed that consumers might perceive online consumer reviews as more relevant when there is a match between temporal distance and regulatory focus. Research has revealed that a fit between consumption goal and consumer orientation enhances perceived relevance, thereby leading to favorable attitudes and greater persuasion effects (Aaker & Lee, 2001; Avent & Higgins, 2006; Zhao & Xie, 2011). Zhao and Xie (2011) further demonstrated that consumers regarded the information as more relevant when there was a match between temporal and social distance. Specifically, they found that recommendations from socially distant others were viewed as more relevant and persuasive for distant-future consumption than for near-future consumption.

On the basis of these findings, prevention-focused (promotion-focused) online consumer reviews paired with proximal (distant) consumption time should lead to greater review relevance, leading to favorable review attitude, brand attitude, and purchase intention.

*Hypothesis 2. Review relevance will mediate the interactive effects of regulatory-focused consumer reviews and temporal distance of consumption time on (a) review attitude, (b) brand attitude, and (c) purchase intention.*

## **Temporal Orientation**

Temporal orientation is a characteristic that distinguishes between individuals who place greater emphasis on either immediate or future consequences (Kees, 2011; Kees, Burton, & Tangari, 2010; Strathman, Gleicher, Boninger, & Edwards, 1994). The consideration of future consequences (CFC) refers to “the extent to which people consider the potential distant outcomes of their current behavior and the extent to which they are influenced by these potential outcomes” (Strathman et al., 1994). Specifically, future-oriented individuals (high-CFC) tend to weight future consequence of their behavior heavily when making decisions. On the other hand, present-oriented individuals (low-CFC) are less concerned with potential future consequence of their behavior (Kees, 2011).

Studies on temporal orientation have found that consumers’ chronic temporal orientation affected message effectiveness and purchase decisions (Strathman et al., 1994; Kees, 2011; Kees et al., 2010; Tangari & Smith, 2012). For example, Kees et al. (2010) suggested that consumers’ temporal orientation moderates the effects of regulatory-framed health advertising messages on attitudes, perceptions, and behavioral intention (Kees et al., 2010). In their study, ad messages that are framed into eager means focused on seeking healthy food and exercising daily to enhance physical activity, while ad messages that are framed into vigilant means keyed on avoiding unhealthy foods and reducing sedentary behaviors. Tangari and Smith (2012) investigated how temporal orientation influenced product choice, attitudes, purchase intention, and perception of savings on energy-saving products. The results indicated that future-oriented consumers positively evaluated the energy-saving products when the advertisements were framed in the distant future instead of the near future. Kees (2011) further suggested that high-

CFC consumers might find a health promotion ad more persuasive than low-CFC consumers when health risks in a persuasive message are framed in the distant future (e.g., the effects of poor diet/exercise habits often take a year to materialize).

Although the relationship between regulatory focus and chronic temporal orientation is generally supported in the previous literature, how consumers with different temporal orientations will respond to regulatory-focused consumer reviews is still unclear. Generally, future-oriented individuals tend to engage with a message framed by eager means (e.g., messages focused on achieving success) than by vigilant means (e.g., messages focused on preventing failure). In contrast, present-oriented individuals are more likely to engage with a message that is framed by vigilant means than by eager means (Lee & Higgins, 2009; Lee et al., 2010).

Drawing on the empirical evidence reviewed above, future-oriented consumers are more likely to show favorable attitudes and greater purchase intention when they read promotion-focused consumer reviews than prevention-focused consumer reviews. On the other hand, present-oriented consumers are more likely to reveal favorable attitudes and greater purchase intention when they read prevention-focused consumer reviews than promotion-focused reviews.

*Hypothesis 3. Consumers' chronic temporal orientation will moderate the effects of regulatory-focused consumer reviews on (a) review attitude, (b) brand attitude, and (c) purchase intention.*

*1). Future-oriented consumers will show more favorable (a) review attitude, (b) brand attitude, and greater (c) purchase intention when they are exposed to promotion-focused consumer reviews than prevention-focused consumer reviews.*



*2). Present-oriented consumers will show more favorable (a) review attitude, (b) brand attitude, and greater (c) purchase intention when they are exposed to prevention-focused consumer reviews than promotion-focused consumer reviews.*

## **The Mediating Role of Regulatory Fit**

Current research proposes regulatory fit as a mediator that can significantly shape more favorable attitudes and behavioral intention. That is, it is expected that consumers might experience regulatory fit when there is a match between regulatory-focused consumer reviews and chronic temporal orientation. The experience of regulatory fit makes consumers' evaluations of an object more favorable, thereby enhancing positive attitude and purchase intention (Lee & Aaker, 2004; Wang & Lee, 2006). Specifically, research has shown that the match between construal level that is induced by temporal perspective and regulatory focus leads to perception of regulatory fit (Kees et al., 2010; Mogilner et al., 2008; Pennington & Roses, 2003; Wakslak et al., 2008). For example, Pennington and Roses (2008) found that consumers experienced a higher perception of regulatory fit when a distant-future (proximal) event was associated with a promotion focus (prevention focus), leading to more favorable attitudes toward the object. Kees et al (2010) demonstrated that regulatory fit between temporal orientation and regulatory-framed ad messages enhances consumers' attitude toward ad. Avent and Higgins (2006) also suggested that regulatory fit influences the value of a decision and a product's perceived monetary value.

Studies on regulatory fit have also demonstrated that evaluation of a target object can be enhanced through the mediating effects of "feeling right" (Higgins, 2006), strength of engagement in the goals being pursued (Hong & Lee, 2008), and heightened motivation to

pursue the goals (Idson, Liberman, & Higgins, 2004). In the current study, these mediation effects of feeling right, strength of engagement, and heightened motivation were measured to operationalize the experience of regulatory fit (Study 3). That is, whereas Studies 1 and 2 examined regulatory fit as the match between regulatory focus and temporal distance under experimental conditions, Study 3 included regulatory fit as a measured variable to test the mediating role of regulatory fit in the hypothesized interaction among the dependent variables. Building on the argument presented above, prevention-focused (promotion-focused) consumer reviews paired with present-orientated (future-oriented) consumers should lead to greater regulatory fit, enhancing favorable review attitude, brand attitude, and purchase intention.

*Hypothesis 4. Regulatory fit will mediate the interactive effects of regulatory-focused consumer reviews and chronic temporal orientation on (a) review attitude, (b) brand attitude, and (c) purchase intention.*

### **Effects of Regulatory Fit on Attitude Formation and Purchase Intention**

As mentioned earlier, research has shown that the experience of regulatory fit positively influenced attitude formation and change (Keller, 2006; Labroo & Lee, 2006; Lee & Aaker, 2004; Wang & Lee, 2006) and purchase intention (Avnet & Higgins, 2003). When individuals read messages (i.e., online reviews), feeling of rightness from regulatory fit makes people more engaged with the situation and be more influenced by the messages (Lee & Aaker, 2004).

Although findings in previous studies point to the effects of regulatory fit between regulatory focus and construal level on attitude formation and behavioral intention, the

mechanism and structural process through which regulatory fit has these effects remain unclear. No rigorous attention has been given to the overall structural effects of regulatory fit on the formation of consumer attitude and purchase intention in the context of online consumer reviews. In order to explore the effects of regulatory fit on attitudinal and behavioral response, the following hypotheses were generated.

*Hypotheses 5. Regulatory fit will positively influence attitude toward consumer review.*

*Hypotheses 6. Regulatory fit will positively influence attitude toward the brand.*

*Hypotheses 7. Regulatory fit will positively influence purchase intention.*

Furthermore, the current study investigated the relationships among review attitude, brand attitude, and purchase intention. The literature on information processing of advertising has shown that attitude toward the ad message leads to favorable attitude toward the product or brand (Haley & Baldinger, 2000; Mitchell, 1986). Also, the relationship between attitude and behavioral intention has been extensively examined in the previous literature. Numerous studies in retailing have suggested that attitude is a central context that directly influences consumers' behavioral intention, which in turn affects actual behavior (e.g., Bagozzi, 1981; Bentler & Speckart, 1979). As suggested by the previous research, it is expected that there are positive relationships among review attitude, brand attitude, and purchase intention.

*Hypotheses 8. Review attitude will positively influence brand attitude (a) and purchase intention (b).*

*Hypotheses 9. Brand attitude will positively influence purchase intention.*

The proposed hypotheses will be tested by conducting three main experiments. Figure 1 depicts the overall conceptual framework of this study and Figure 2 shows the conceptual model of Study 1. Study 1 aims to investigate how contextual factor (temporal distance of consumption) moderates the effects of regulatory-focused consumer reviews on attitude toward the reviews. Figure 3 shows the conceptual model of Study 2. Study 2 aims to generalize and extend the results of study 1 by examining how contextual factor (temporal distance of consumption) moderates the effects of regulatory-focused consumer reviews on attitude toward the reviews, brand attitude, and purchase intention. Furthermore, the mediation role of review relevance was explored. Figure 4 displays the conceptual model of Study 3. Study 3 aims to investigate how personal factor (chronic temporal orientation) moderates the effects of regulatory-focused consumer reviews on attitude toward the reviews, brand attitude, and purchase intention. Moreover, the mediation role of regulatory fit was explored. In order to fully explore the effects of regulatory fit on attitudinal and behavioral response and examine the relationships among the dependent variables, the proposed hypotheses were tested using structural equation modeling (see Figure 5). Table 3 shows the summary of hypotheses for each study.

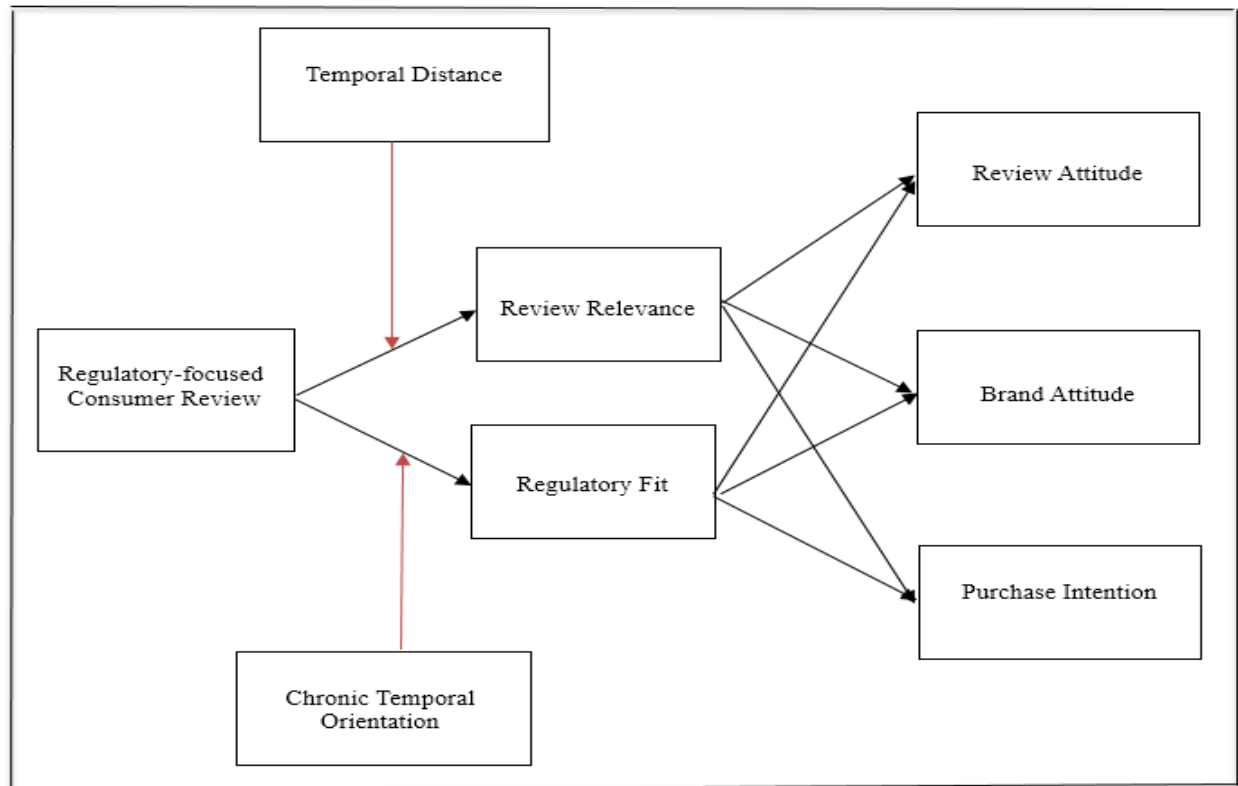


Figure 1. Conceptual Framework

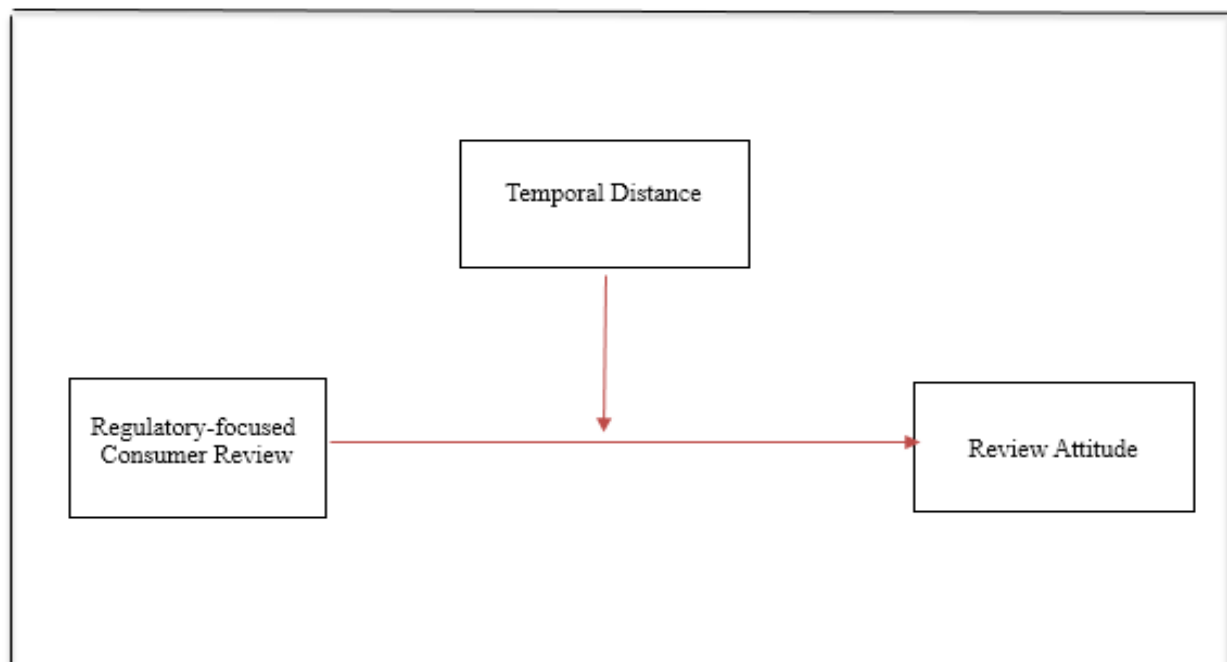


Figure 2. Conceptual Model of Study1

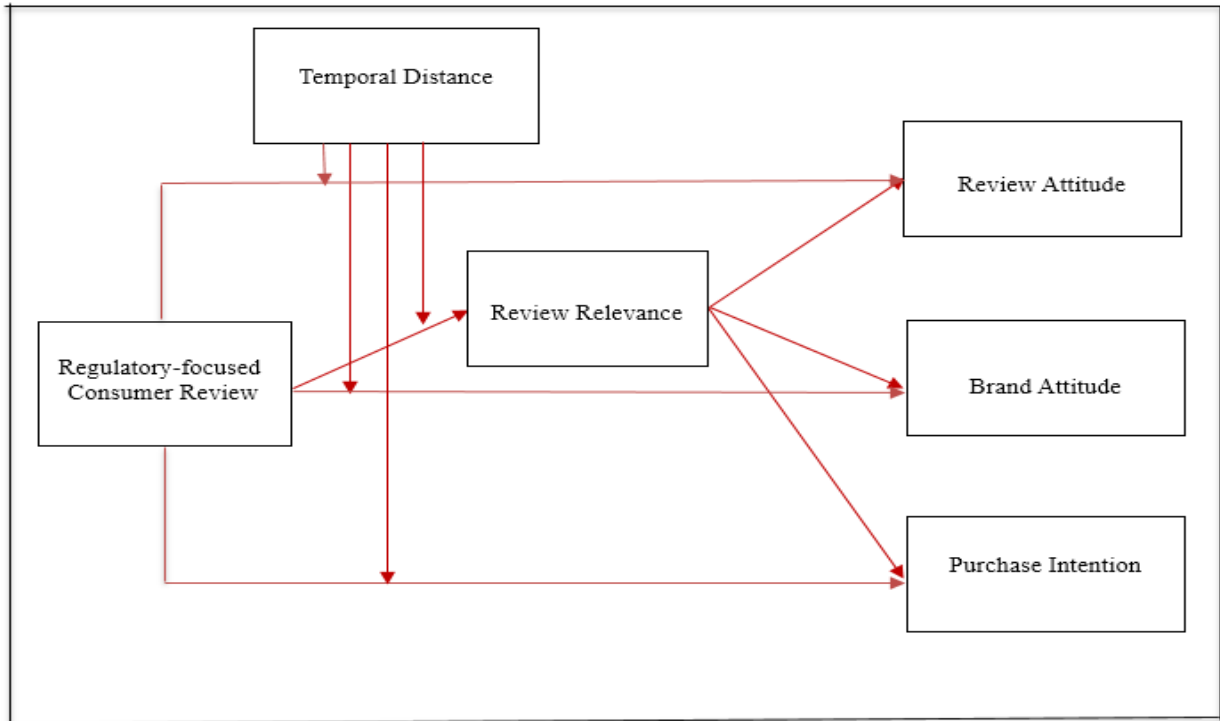


Figure 3. Conceptual Model of Study2

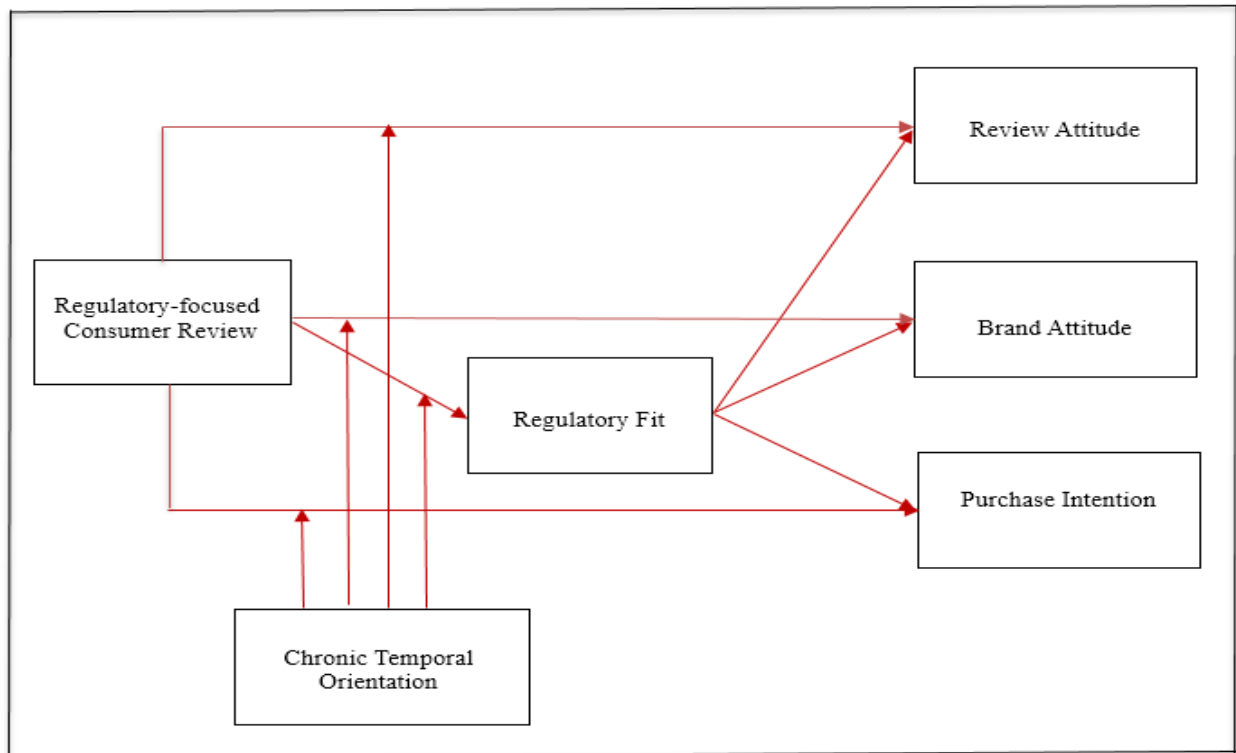


Figure 4. Conceptual Model of Study3

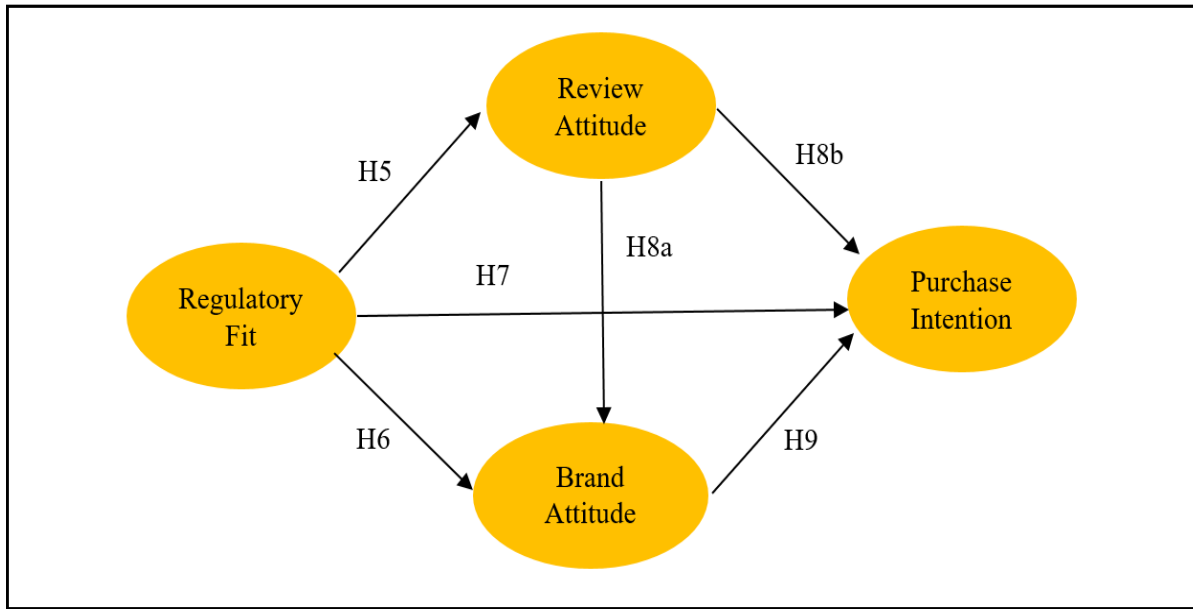


Figure 5. Proposed Model of SEM

Table 3. Summary of Hypotheses

Hypotheses			Study
H1	H1.1.a	<i>When a purchase is temporally distant, promotion-focused consumer reviews will lead to more favorable (a) review attitude than prevention-focused consumer reviews.</i>	Study 1 and 2
	H1.1.b	<i>When a purchase is temporally distant, promotion-focused consumer reviews will lead to more favorable (b) brand attitude than prevention-focused consumer reviews.</i>	Study 2
	H1.1.c	<i>When a purchase is temporally distant, promotion-focused consumer reviews will lead to greater (c) purchase intention than prevention-focused consumer reviews than prevention-focused consumer reviews.</i>	Study 2
	H1.2.a	<i>When a purchase is temporally proximal, prevention-focused consumer reviews will lead to more favorable (a) review attitude than promotion-focused consumer reviews.</i>	Study 1 and 2
	H1.2.b	<i>When a purchase is temporally proximal, prevention-focused consumer reviews will lead to more favorable (b) brand attitude than promotion-focused consumer reviews.</i>	Study 2
	H1.2.c	<i>When a purchase is temporally proximal, prevention-focused consumer reviews will lead to greater (c) purchase intention than promotion-focused consumer reviews.</i>	Study 2
H2	H.2.a	<i>Review relevance will mediate the interactive effects of regulatory-focused consumer reviews and temporal distance of consumption time on (a) review attitude.</i>	Study 2
	H.2.b	<i>Review relevance will mediate the interactive effects of regulatory-focused consumer reviews and temporal distance of consumption time on (b) brand attitude.</i>	Study 2
	H.2.c	<i>Review relevance will mediate the interactive effects of regulatory-focused consumer reviews and temporal distance of consumption time on (c) purchase intention.</i>	Study 2
H3	H3.1.a	<i>Future-oriented consumers will show more favorable (a) review attitude when they are exposed to promotion-focused consumer reviews than prevention-focused consumer reviews.</i>	Study 3
	H3.1.b	<i>Future-oriented consumers will show more favorable (b) brand attitude when they are exposed to promotion-focused consumer reviews than prevention-focused consumer reviews.</i>	Study 3



Table 3. Continued

Hypotheses			Study
	H3.1.c	<i>Future-oriented consumers will show greater (c) purchase intention when they are exposed to promotion-focused consumer reviews than prevention-focused consumer reviews.</i>	Study 3
	H3.2.a	<i>Present-oriented consumers will show more favorable (a) review attitude when they are exposed to prevention-focused consumer reviews than promotion-focused consumer reviews.</i>	Study 3
	H3.2.b	<i>Present-oriented consumers will show more favorable (b) brand attitude when they are exposed to prevention-focused consumer reviews than promotion-focused consumer reviews.</i>	Study 3
	H3.2.c	<i>Present-oriented consumers will show greater (c) purchase intention when they are exposed to prevention-focused consumer reviews than promotion-focused consumer reviews.</i>	Study 3
H4	H.4.a	<i>Regulatory fit will mediate the interactive effects of regulatory-focused consumer reviews and consumers' chronic temporal orientation on (a) review attitude.</i>	Study 3
	H.4.b	<i>Regulatory fit will mediate the interactive effects of regulatory-focused consumer reviews and consumers' chronic temporal orientation on (b) brand attitude.</i>	Study 3
	H.4.c	<i>Regulatory fit will mediate the interactive effects of regulatory-focused consumer reviews and consumers' chronic temporal orientation on (c) purchase intention.</i>	Study 3
H5		<i>Regulatory fit will positively influence attitude toward consumer review.</i>	Study 3
H6		<i>Regulatory fit will positively influence attitude toward the brand.</i>	Study 3
H7		<i>Regulatory fit will positively influence purchase intention.</i>	Study 3
H8	H8a	<i>Review attitude will positively influence (a) brand attitude.</i>	Study 3
	H8b	<i>Review attitude will positively influence (b) purchase intention.</i>	Study 3
H9		<i>Brand attitude will positively influence purchase intention.</i>	Study 3

## CHAPTER 3

### CONTENT ANALYSIS AND PRETEST

This chapter includes the content analyses and pretests that were conducted to develop experimental stimuli, manipulation, and survey measurements for the main studies. Stimuli for the main studies were developed through several steps. First, two content analyses were conducted to identify the most frequently used words in online consumer reviews prior to the pretests. A total of 912 consumer reviews were analyzed for athletic shoes in the first content analysis and 1,396 consumer reviews were analyzed for hotel in the second content analysis. The word frequency and key product attributes were identified using NVivo software. After content analysis, two sets of online consumer reviews (i.e., prevention-focused reviews and promotion-focused reviews) for athletic shoes and a hotel were developed as experimental stimuli. Second, two pretests were performed prior to the three main studies. The first pretest was conducted to test manipulation of regulatory-focused consumer reviews (athletic shoes) and temporal distance for main study 1. The second pretest was performed to assess the effectiveness of manipulating regulatory-focused consumer reviews (hotel) and temporal distance for main study 2 and study 3. This study was reviewed and exempted by the UTK Institutional Review Board prior to the pretests and main studies (Approval No: **UTK IRB-15-02095-XP**) (Appendix G).

## **Stimuli Development**

### **Product Selection**

The focal products were selected based on two criteria: (a) reasonable relevance to the subject samples and (b) familiarity and importance. Thus, participants were expected to become interested in reading different types of online consumer reviews. A small interview ( $n = 12$ ; 3 male and 9 female) was conducted using college students and graduate students enrolled at a major southern university. The interview was done to brainstorm about and select consumer goods that were relevant to college students and germane to this study.

At the beginning of the interview, the definitions of regulatory focus in consumer reviews and temporal distance were given to the participants, who were then asked to talk freely about their ideas. The question was worded in this way: “Based on the definitions of regulatory focused and temporal distance, please provide examples of product categories that are gender neutral and relevant to college students.” Participants were also asked to write down attributes that they considered important for the given products. On the basis of these criteria, such as relevance and familiarity, athletic shoes and hotel were selected as appropriate product categories.

### **Development of Stimuli for Athletic Shoes: Content Analysis**

A content analysis was conducted to identify the most frequently used words in online consumer reviews for athletic shoes. Major shoe retailers (e.g., Shoes.com and Zappos.com) were observed for three months from March 2015 to May 2015. A total of 912 consumer reviews

were analyzed using NVivo software (QSR International, 2002). The most frequently cited words in the consumer reviews were recorded (see Table 4). Using the NVivo results, a word cloud was created to represent the text frequency count visually. In a word cloud, font size and other visual characteristics display the relative importance of words in a textual data set (see Figure 6). Based on the most commonly used terms, four key attributes (i.e., comfort, size, fit, and support) were identified and two sets of consumer reviews were developed as experimental stimuli for Pretest 1. The prevention-focused reviews emphasized avoidance of negative outcomes by wearing athletic shoes. The promotion-focused reviews emphasized the positive benefits of using athletic shoes.

### **Development of Stimuli for Hotel Reviews: Content Analysis**

In order to develop the consumer reviews, the researcher observed various online consumer discussion forums (e.g., Travelocity.com, Hotel.com, and Expedia.com) from May 2015 to December 2015. Based on these observations, 1,396 consumer reviews were collected and analyzed using NVivo. Consumer reviews of hotels were analyzed by word and phrase occurrence and frequency (see Table 5). A word cloud was created to represent the text frequency count visually (see Figure7). Based on the most commonly used terms, five attributes (i.e., location, comfort, cleanliness, privacy, and staff attitude toward guests) were identified and two sets of consumer reviews were developed as experimental stimuli for Pretest 2. That is, two prevention-focused consumer reviews and two promotion-focused consumer reviews were developed. The prevention-focused reviews emphasized avoidance of negative outcomes by staying in the hotel. The promotion-focused reviews emphasized the positive benefits of staying in the hotel.

Table 4. Qualitative Analysis (Most Frequently Used Words in Consumer Reviews About Athletic Shoes)

<b>Word</b>	<b>Length</b>	<b>Count</b>	<b>Weighted percentage (%)</b>	<b>Similar words</b>
shoes	5	1560	6.25	shoe, shoes
comfortable	11	555	2.22	comfort, comfortable, comfortably
great	5	372	1.49	great
wears	5	351	1.41	wear, wearing, wears
sizing	6	333	1.33	size, sized, sizes, sizing
fit	3	324	1.30	fit, fits, fitting
feet	4	288	1.15	feet
love	4	267	1.07	love, loved, lovely, loves, loving
pair	4	266	1.06	pair, pairs
support	7	265	1.05	support, supported, supportive
like	4	222	0.89	like, liked, likely, likes
wide	4	219	0.88	wide
look	4	207	0.83	look, looked, looking, looks
good	4	168	0.67	good
walking	7	165	0.66	walk, walked, walking, walks
finds	5	153	0.61	find, finding, finds
perfectly	9	153	0.61	perfect, perfectly
running	7	150	0.60	run, running, runs
arches	6	147	0.59	arch, arches



Figure 6. Word Cloud of Shoes Reviews

Table 5. Qualitative Analysis (Most Frequently Used Words in Consumer Reviews About Hotel)

<b>Word</b>	<b>Length</b>	<b>Count</b>	<b>Weighted percentage (%)</b>	<b>Similar words</b>
rooms	5	1,828	3.33	room, rooms
hotel	5	1,740	3.17	hotel, hotels
stay	4	936	1.71	stay, stayed, staying, stays
great	5	744	1.36	great, greatly
staffs	6	644	1.21	staff, staffs
cleaning	8	532	0.97	clean, cleaned, cleaning
location	8	524	0.96	locate, located, location, locations
nice	4	512	0.93	nice, nicely
breakfast	9	472	0.86	breakfast, breakfasts
good	4	444	0.81	good, goodness
service	7	408	0.74	service, services
nights	6	380	0.69	night, nights
beds	4	368	0.67	bed, bedding, beds
comfortable	11	364	0.66	comfort, comfortable, comfortably,
friends	7	356	0.65	friend, friendly, friends
restaurant	10	280	0.51	restaurant, restaurants
helpful	7	268	0.49	help, helped, helpful, helping
like	4	264	0.48	like, liked, likely, liking
view	4	252	0.46	view, views



Figure 7. Word Cloud of Hotel Reviews



## **Pretest 1**

### **Research Subjects and Procedure**

The purpose of Pretest 1 was to pre-check the manipulation of regulatory focus in consumer reviews and temporal distance for Study 1. The experimental stimulus was composed of the product' picture image and consumer reviews in text. The reviewers' names, picture image, product information (e.g., price, size, and color) were kept the same across the two review conditions, but the consumer reviews were framed into either promotion- or prevention-focused reviews. A convenience sample of 104 undergraduate students enrolled at a major southern university participated in Pretest 1 in exchange for extra credit. The mean age of the sample was 19.9 years ( $SD = 1.44$ ; range = 19 to 32), and 51.9 % were female.

An invitation email containing the URL link to the survey, research information, and survey directions was sent to participants. After clicking the survey link, participants were randomly placed into one of four experimental conditions (i.e., distant-future and promotion-focused review, distant-future and prevention-focused review, near-future and promotion-focused review, and near-future and prevention-focused review). At the beginning of the survey, information about the purpose of the study, a description of the procedure, and the time expected to complete the survey were provided. Each participant was asked to read a short scenario of temporal distance.

## Manipulation Checks

Temporal distance was manipulated by varying when the consumption was to take place: either in the near future or in the distant future. More specifically, participants asked to read the following scenario: “Imagine that you are going to purchase a pair of athletic shoes in two days (i.e., a near-future condition) or six months from now (i.e., a distant-future condition).” To assess temporal distance, we asked the participants two questions anchored with 7-point bipolar items. Specifically, they were asked to identify how far in the future they felt the consumption event would be: (1) very soon or (7) sometime much later; (1) the near future or (7) the distant future.

An independent sample t-test was also performed to assess the validity of the temporal distance manipulation. The results revealed that the subjects in the distant-future condition considered the consumption situation more temporally distant ( $M = 5.17$ ,  $SD = 1.40$ ), whereas the subjects in the near-future condition perceived the consumption situation as more temporally proximal ( $M = 3.98$ ,  $SD = 1.98$ ). The difference between the proximal and distant conditions was statistically significant,  $t(102) = 3.55$ ,  $p < 0.001$  (see Table 6). Thus, the manipulation was successfully achieved for temporal distance.

After reading the scenario, participants are asked to read the consumer reviews, which were framed by the two regulatory goals: promotion- or prevention-focused. To make the consumers reviews more nature and less artificial, actual consumer reviews for athletic shoes were adopted and modified. Based on the content analysis, two consumer reviews for each experimental condition were developed in the pretest. The promotion-focused reviews include increasing the power of running and promoting athletic performance, whereas the prevention-

focused reviews emphasize avoiding certain discomforts associated with running and preventing muscle strain (see Table 7 and Appendix A).

Participants were asked to identify whether the online reviews emphasized (1) more ideas about prevention or (7) more ideas about promotion; (1) avoiding something negative or (7) attaining something positive; and (1) more ideas about protection or (7) more ideas about enhancement (Poel & Dewitte, 2008). To assess the effectiveness of manipulating regulatory focus, an independent sample t-test was conducted. The subjects in the promotion-focused condition considered the emphasis of the consumer reviews to be the promotion of positive outcome ( $M = 5.77$ ,  $SD = .97$ ), whereas the subjects in the prevention-focused condition considered the emphasis of the consumer reviews to be the prevention of negative outcomes ( $M = 4.72$ ,  $SD = 1.65$ ).

Although the overall manipulation mean value for prevention-focused reviews was relatively higher ( $M = 4.72$ ) than median value ( $M = 4.0$ ) of measurement scales (1 to 7), the difference between the two regulatory focus conditions was statistically significant,  $t(102) = 3.96$ ,  $p < 0.001$  (see Table 8). Accordingly, the manipulation was deemed successful.

Table 6. T-test Result for Temporal Distance in Pretest 1

Measure	Distant future		Near future		$t(df)$	$p$
	M (SD)	n	M (SD)	n		
Temporal distance	5.17 (1.40)	54	3.98 (1.98)	50	3.55 (102)	$p < .001$

Table 7. Examples of Regulatory-focused Consumer Reviews for Athletic Shoes

Promotion-focused consumer reviews	Prevention-focused consumer reviews
<p><b><i>“Great running shoes”</i></b></p> <p><i>I work all day on my feet. I love these shoes because the scientifically-engineered foam lining can actually maximize support and increase shock absorption. They are more comfortable than any athletic shoes I have.</i></p> <p><b><i>“As expected, all is good”</i></b></p> <p><i>They are very nice shoes. I recommend trying on a pair if you are looking for stylish running shoes that help improve athletic performance and promote endurance.</i></p>	<p><b><i>“Great running shoes”</i></b></p> <p><i>I work all day on my feet. I love these shoes because the scientifically-engineered foam lining can actually minimize the pain of running. They are more comfortable than any athletic shoes I have.</i></p> <p><b><i>“As expected, all is good”</i></b></p> <p><i>They are very nice shoes. I recommend trying on a pair on if you are looking for stylish running shoes that prevent muscle strain and sore ligaments that occur during running.</i></p>

Table 8. T-test Result for Regulatory Focus in Pretest 1

Measure	Promotion-focused consumer review		Prevention-focused consumer review		<i>t (df)</i>	<i>p</i>
	M (SD)	n	M (SD)	n		
Regulatory-focused consumer review	5.77 (.97)	53	4.72 (1.65)	51	3.96 (102)	<i>p</i> < .001

## **Pretest 2**

Pretest 2 was conducted to accomplish two overall goals. The main objective was to ensure that the manipulation of regulatory focus and temporal distance for Study 2 and Study 3 in the context of online hotel reviews was valid. Experimental stimulus was composed of the product's picture image and consumer reviews in text. The reviewers' names and picture image were kept the same across the two review conditions, but the consumer reviews were framed into either promotion- or prevention-focused reviews. The second objective was to understand which type of online consumer review (i.e., prevention- or promotion-focused) was more effective in shaping favorable attitude.

## **Research Subjects and Procedure**

Forty-seven undergraduate students were recruited from a retail and consumer science course at a major southern university in exchanged for extra credit. The mean age of the sample was 21.6 years ( $SD = 2.54$ ; range = 19 to 36), and 78.7 % were female. An invitation email containing the URL link to the survey, research information, and survey directions was sent to the participants. Upon opening the survey website, the subjects were randomly assigned to one of two experimental conditions (i.e., distant- or near-future consumption). After reading both types of consumer reviews, participants were asked to select one type of consumer review that they preferred to read. Participants were then asked to complete several questionnaires, including manipulation checks, attitude toward online consumer reviews, and demographics.

## Manipulation Checks

In order to manipulate temporal distance of consumption, participants were asked to read the following scenario: “Imagine that you are going to book a hotel room for this week (i.e., a near-future condition) or next year (i.e., a distant-future condition).” To assess temporal distance, participants were asked to answer two questions anchored by 7-point bipolar items (Kim & Lee, 2008). Specifically, they were asked to identify how far in the future they felt their trip would be: (1) very soon or (7) sometime much later; (1) the near future or (7) the distant future.

An independent sample t-test was performed to assess the validity of the temporal distance manipulation. The results revealed that the subjects in the distant-future condition considered the scenario to be more temporally distant ( $M = 5.40$ ,  $SD = 1.27$ ), whereas the subjects in the near-future condition perceived the scenario to be more temporally proximal ( $M = 3.54$ ,  $SD = 1.37$ ,  $t(45) = 4.77$ ,  $p < 0.001$ ) (see Table 9). Accordingly, the manipulation was deemed successful.

To manipulate regulatory focus, two sets of consumer reviews (two promotion-focused reviews and two prevention-focused reviews) were developed for Pretest 2. To make the consumers reviews more realistic, actual consumer reviews from major hotel review websites (i.e., Expedia.com, Hotel.com, and Travelocity.com) were adopted and modified based on the content analysis. The promotion-focused consumer reviews emphasize that staying in the hotel would maximize positive outcomes and the prevention-focused consumer reviews emphasized that staying in the hotel would minimize negative outcomes (see Table 10 and Appendix B).

To access the effectiveness of manipulation of regulatory focus, an independent sample t-test was conducted. The subjects in the promotion-focused condition considered the consumer

reviews promoting positive outcome ( $M = 5.68$ ,  $SD = .88$ ), whereas the subjects in the prevention-focused condition perceived the consumer reviews preventing negative outcomes ( $M = 4.57$ ,  $SD = 1.49$ ),  $t(45) = 3.18$ ,  $p < 0.01$  (see Table 11). Thus, the manipulation was successfully achieved for regulatory focus in consumer reviews.

Attitude toward online consumer reviews was measured using three 7-point semantic differential items anchored with “negative/positive,” “unfavorable/favorable,” and “bad/good” (adopted from Lee & Aaker, 2004). An independent sample t-test was conducted to examine whether there were significant differences between the promotion- and the prevention-focused review types on review attitude. The analysis revealed that participants showed more favorable attitudes toward consumer reviews that were promotion focused ( $M = 6.15$ ,  $SD = .90$ ) than consumer reviews that were prevention focused ( $M = 5.43$ ,  $SD = .78$ ). The difference between the promotion- and prevention-focused review types was statistically significant,  $t(45) = 2.62$ ,  $p < 0.01$ . Thus, the results of pretest 2 indicated that promotion-focused reviews were more effective in shaping favorable review attitude than prevention-focused reviews. Table 12 presents the overview of research procedures for content analyses, pretests, and main studies of this dissertation.

Table 9. T-test Result for Temporal Distance in Pretest 2

Measure	Distant future		Near future		<i>t</i>	<i>p</i>
	M (SD)	n	M (SD)	n		
Temporal distance	5.40 (1.27)	25	3.54 (1.37)	22	4.77 (45)	$p < .001$

Table 10. Examples of Regulatory-focused Consumer Reviews for Hotel

Promotion-focused consumer reviews	Prevention-focused consumer reviews
<p><b><i>“La Perla Villa with maximum privacy and great location”</i></b></p> <p><i>The room had soundproofing walls and windows that assure maximum privacy and enhanced restful sleep. The location was very ideal for sightseeing and going to famous restaurants. If you want to increase the maximum benefits for your vacation, I recommend this hotel.</i></p> <p><b><i>“La Perla Villa with maximum comfort and relaxation”</i></b></p> <p><i>I have enjoyed my stay at this hotel. The bed was incredibly comfortable and was immediately relaxed when I lay down. The soft white bedding included the world best pillows and the comfortable mattress could help promote a good night’s sleep.</i></p>	<p><b><i>“La Perla Villa with guest security and privacy protection”</i></b></p> <p><i>The room had soundproofing walls and windows that cut down on street noise or other people noise and protected my privacy. Since the hotel is conveniently located, I didn’t have to pay extra money renting a car. If you want to avoid a terrible time or bunch of hassles, I highly recommend this hotel.</i></p> <p><b><i>“La Perla Villa with guest comfort”</i></b></p> <p><i>I have enjoyed my stay at this hotel. The bed was very comfortable and I was immediately relaxed when I lay down. The room’s pillow protectors and mattress pads helped preventing us from getting back pains and they didn’t really bother our sleep.</i></p>

Table 11. T-test Result for Regulatory Focus in Pretest 2

Measure	Promotion-focused consumer review		Prevention-focused consumer review		<i>t (df)</i>	<i>P</i>
	M (SD)	n	M (SD)	n		
Regulatory-focused consumer review	5.68 (.88)	33	4.57 (1.49)	14	3.18 (45)	<i>p</i> < .01



Table 12. Summary of Research Procedures

Stimuli Development
<p>(Study 1- Athletic Shoes)</p> <ol style="list-style-type: none"> <li>1. Content Analysis 1 <ul style="list-style-type: none"> <li>- Selection of product attributes that were considered to be important for athletic shoes.</li> <li>- 912 consumer reviews were collected from major online shoes retailers (e.g., shoes.com and zappos.com) and analyzed with NVivo software.</li> </ul> </li> <li>2. Pretest 1 <ul style="list-style-type: none"> <li>- Development of three online consumer reviews based on content analysis.</li> <li>- Confirmation of manipulation check for regulatory-focused consumer review and temporal distance.</li> <li>- Athletic shoes (fictitious brand: Newton)</li> <li>- 104 undergraduate students (51.9% female; Mean-19.9)</li> </ul> </li> </ol> <p>(Study 2 and 3 - Hotel)</p> <ol style="list-style-type: none"> <li>1. Content Analysis 2 <ul style="list-style-type: none"> <li>- Selection of product attributes that were considered to be important for hotel.</li> <li>- 1,396 consumer reviews were collected from major hotel websites (e.g., Travelocity.com, expedia.com, and hotel.com) and analyzed with NVivo software.</li> </ul> </li> <li>2. Pretest 2 <ul style="list-style-type: none"> <li>- Development of three online consumer reviews based on content analysis.</li> <li>- Confirmation of manipulation check for regulatory-focused consumer review and temporal distance.</li> <li>- Hotel (fictitious brand: La Perla Villa)</li> <li>- 47 undergraduate students (78.7% female; Mean age-21.6)</li> </ul> </li> </ol>



Table 12. Continued

Main Studies
<p>1. Study 1</p> <ul style="list-style-type: none"> <li>- A 2 (Regulatory-focused consumer review: Promotion vs. Prevention) x 2 (Temporal distance: Distant vs. Proximal) between-subjects factorial design</li> <li>- DV: Review attitude</li> <li>- 219 undergraduate students (49.8% female, mean age = 20)</li> <li>- Athletic shoes (fictitious brand: Newton)</li> </ul> <p>2. Study 2</p> <ul style="list-style-type: none"> <li>- A 2 (Regulatory-focused consumer review: Promotion vs. Prevention) x 2 (Temporal distance: Distant vs. Proximal) between-subjects factorial design.</li> <li>- DV: Review attitude, brand attitude, and purchase intention</li> <li>- Mediator: Review relevance</li> <li>- 120 undergraduate students (60.8% female; mean age = 21)</li> <li>- Hotel (fictitious brand: Sunshine)</li> </ul> <p>3. Study 3</p> <ul style="list-style-type: none"> <li>- A 2 (Regulatory-focused consumer review: Promotion vs. Prevention) x 2 (Chronic temporal orientation: Future vs. Present) between-subjects factorial design.</li> <li>- DV: Review attitude, brand attitude, and purchase intention</li> <li>- Mediator: Regulatory fit</li> <li>- Structural effects of regulatory fit</li> <li>- 393 U.S consumer panels</li> <li>- Hotel (fictitious brand: Salinger)</li> </ul>

## **CHAPTER 4**

### **MAIN STUDY**

This chapter discusses the methods and results of main studies pertinent to empirically testing hypotheses proposed in this study. The objectives of the main studies are four-fold: (1) to examine how contextual factor (i.e., temporal distance) moderates the effects of regulatory-focused consumer reviews on review attitude, (2) to explore how personal factor (i.e., chronic temporal orientation) moderates the effects of regulatory-focused consumer reviews on review attitude, brand attitude, and purchase intention, (3) to demonstrate the mediation mechanism of review relevance and regulatory fit underlying the interaction effects, and (4) to discuss the structural effects of regulatory fit on consumers' attitudinal and behavioral responses. Therefore, experimental design was selected to explore the causal relationships between independent and dependent variables as well as moderators and mediators for the main studies (1, 2, and 3). SEM analysis was additionally performed to explore the relationships among regulatory fit, review attitude, brand attitude, and purchase intention (Study 3).

## Study 1

The primary objective of Study 1 was to test the moderating role of temporal distance on the effect of regulatory-focused consumer reviews on review attitude (H1a). Specifically, it was expected that when consumers plan to purchase a product for a distant future, they will evaluate the promotion-focused consumer reviews more favorably than the prevention-focused reviews (H1.1.a), and the opposite effect will occur for the prevention-focused reviews with a near-future consumption (H1.2.a). The online consumer reviews were experimentally manipulated based on regulatory goals: prevention- and promotion-focused (See Appendix A). To avoid the potential confounding effects, such as participants' prior brand knowledge, brand familiarity or preexisting attitudes toward the brand, a fictitious brand (i.e., Newton) of athletic shoes was used as the target stimulus. Figure 8 depicts the conceptual model of Study 1 and Table 13 displays the proposed hypotheses (H1.1.a and H1.2.a).

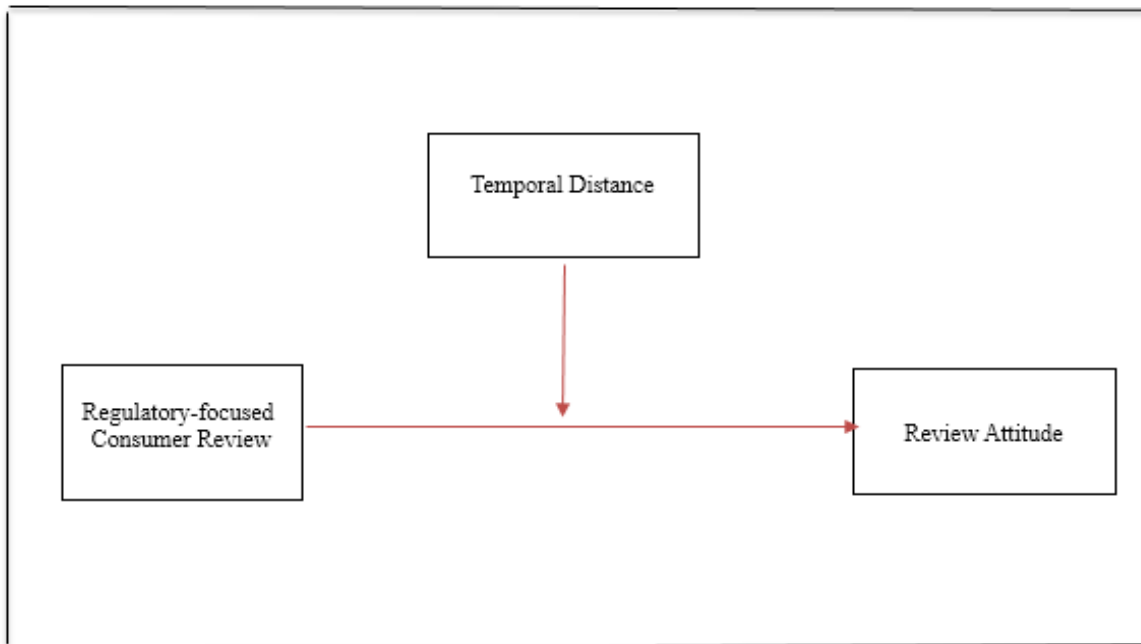


Figure 8. Conceptual Model of Study1

Table 13. Hypotheses of Study 1

H1		Hypotheses
H1	H1.1.a	<i>1) When a purchase is temporally distant, promotion-focused consumer reviews will lead to more favorable (a) review attitude than prevention-focused consumer reviews.</i>
	H1.2.a	<i>2) When a purchase is temporally proximal, prevention-focused consumer reviews will lead to more favorable (a) review attitude than promotion-focused consumer reviews.</i>

## Research Design and Subjects

An experiment was conducted in a research lab using a 2 (regulatory-focused consumer review: promotion vs. prevention) X 2 (temporal distance: distant vs. proximal) between-subjects factorial design. A total of 219 undergraduate students who enrolled in an introductory marketing course at a large Midwestern university recruited in exchange for extra credits (49.8% female, mean age = 20) (see Table 14). Running in groups ranging from 15 to 20, participants were randomly assigned to one of the four experimental conditions. College students would be an appropriate sample for this study because they are one of the largest online shopper groups for an apparel product (Hsu, 2013), and their online shopping behaviors are found to be not significantly different from the general population (Jiang, Chan, Tan, & Chua, 2010). See Table 14 for demographic information about study subjects.

Table 14. Demographic Characteristics of Participants of Study 1

Demographics	Mean (SD)	Frequency (N = 219)	Percent
Gender			
Female		109	49.8
Male		110	50.2
Age (N = 219 )	20 (1.45)		
Under 20		78	35.6
20-24		138	63
25-30		1	0.5
Over 30		2	0.9
Ethnic background			
African American		12	5.5
Caucasian American		184	84
Hispanic		13	5.9
Asian/pacific islander		4	1.8
Multi-cultural		5	2.3
Others		1	0.5

## Procedure

The main experiment consisted of four steps. First, participants came to a computer lab where experimental sessions were held and each session lasted for approximately 15 minutes. After they arrived the computer lab, participants were randomly assigned to one of the four experimental conditions. Second, they viewed an online shopping scenario with either a proximal- or a distant-future condition. Third, participants were then asked to read consumer reviews for athletic shoes. After carefully reading online consumer reviews, participants were asked to complete a questionnaire including dependent variables, manipulation checks, and demographics.

## Stimulus Materials

***Temporal Distance.*** Temporal distance was manipulated by varying when the consumption was to take place: in the near future (e.g. two days) or in the distant future (e.g., six months from now). More specifically, participants were asked to read the following scenario: “Imagine that you are going to purchase a pair of athletic shoes in two days (six months from now). To assess temporal distance manipulation check, the researcher asked the participants two questions anchored with 7-point bipolar items. Specifically, they were asked to identify how far in the future they felt the consumption event would be: (1) very soon or (7) sometime much later; (1) the near future or (7) the distant future.

***Regulatory Focus.*** The same sets of consumer reviews with Pretest 1 were used for Study 1. The review providers’ names, picture image, product information (e.g., price, size, and color) were kept the same across the two review conditions, but the consumer reviews were framed on either promotion- or prevention-focused. The prevention-focused consumer reviews emphasized to avoid the pain of running and prevent muscle strain caused by wearing the athletic shoes. The promotion-focused consumer reviews focused to increase the power of running and promote athletic performance when using the athletic shoes (See Appendix C).

To verify manipulation check for regulatory goals in consumer reviews, participants were asked to answer the following statements on 7-point scales: Whether the consumer reviews emphasize (1) more ideas about prevention or (7) more ideas about promotion; (1) avoiding something negative or (7) attaining something positive; and (1) more ideas about protection or (7) more ideas about enhancement (Poel & Dewitte, 2008).

## Dependent Measures

**Review Attitude.** Attitude toward the consumer reviews was measured using three, 7-point semantic differential items anchored by “negative/positive,” “unfavorable/favorable,” and “bad/good” ( $\alpha = .95$ ) (Lee & Aaker, 2004).

## Results

### *Manipulation Checks*

The manipulation of temporal distance was accessed by conducting an independent sample t-test. As predicted, participants in the distant-future condition perceived the consumption as more temporally distant ( $M = 4.70$ ,  $SD = 1.62$ ), whereas participants in the proximal-future condition regarded the consumption as more temporally proximal ( $M = 3.98$ ,  $SD = 1.98$ ). The difference between the distant and proximal comparison conditions was statistically significant,  $t(217) = 2.95$ ,  $p < .01$  (See Table 15).

Table 15. T-test Result for Temporal Distance Manipulation Check in Study1

Measure	Distant future		Near future		$t(df)$	$p$
	M (SD)	n	M (SD)	n		
Temporal distance	4.70 (1.62)	114	3.98 (1.98)	105	2.95 (217)	$p < .01$

The manipulation check of regulatory goals in consumer reviews revealed that participants in the promotion-focused review condition perceived that the reviews conveyed the promotion of positive outcomes ( $M = 5.53$ ,  $SD = 1.07$ ). Participants in the prevention-focused



review condition considered that the reviews conveyed the prevention of negative outcomes ( $M = 4.49$ ,  $SD = 1.53$ ). The difference between the two regulatory focus conditions was statistically significant,  $t(217) = 5.81$ ,  $p < .001$ . Thus, the manipulation check for regulatory focus was successfully confirmed (See Table 16).

Table 16. T-test Result for Regulatory Focus in Study 1

Measure	Promotion-focused consumer review		Prevention-focused consumer review		$t(df)$	$p$
	M (SD)	n	M (SD)	n		
Regulatory- focused consumer review	5.53 (1.07)	106	4.49 (1.45)	113	5.81 (217)	$p < .001$

### *Hypothesis Testing*

**Review Attitude.** The researcher first analyzed whether the regulatory-focused consumer reviews and the temporal distance of consumption influenced consumers' attitude toward reviews. A two-way univariate analysis of variance (ANOVA) was conducted to test the proposed hypotheses (H1.1.a and H1.2.a). The analysis treated the regulatory-focused consumer reviews and temporal distance as independent variables and review attitude as a dependent variable.

A two-way ANOVA yielded that there were no main effects of regulatory-focused consumer review ( $F(1, 215) = .30$ ,  $p = .68$ ) and temporal distance ( $F(1, 215) = .08$ ,  $p = .83$ ) on consumers' attitude toward the reviews. However, there was a significant two-way interaction

between regulatory-focused consumer review and temporal distance on review attitude ( $F(1, 215) = 4.99, p < .05$ ) (see Table 17).

As shown in Table 18 and Figure 9, planned contrasts revealed that there were no significant differences in review attitude between promotion-focused consumer reviews and prevention-focused consumer reviews under the distant-future consumption ( $M_{\text{promotion}} = 6.03, M_{\text{prevention}} = 5.89, t = .77, p = .48$ ). However, participants showed more favorable attitudes toward the prevention-focused consumer reviews than the promotion-focused consumer review under the proximal-future consumption ( $M_{\text{promotion}} = 5.81, M_{\text{prevention}} = 6.28, t = 2.32, p < .01$ ). Therefore, H1.1.a was not supported, but H1.2.a was supported. Table 19 displays the summary of hypotheses and results of Study 1.

Table 17. Two-way ANOVA Results for Review Attitude

Source	df	<i>F</i>	<i>p</i>
Regulatory-focused review (RF)	1, 215	.30	$p = .68$
Temporal distance (TD)	1, 215	.08	$p = .83$
<b>RF X TD</b>	<b>1, 215</b>	<b>4.99</b>	<b><math>p &lt; .05</math></b>

Table 18. Planned Contrast Results for Interaction Effect on Review Attitude

	Distant future		Near future	
	Promotion-focused review ( <i>n</i> = 106)	Prevention-focused review ( <i>n</i> = 113)	Promotion-focused review ( <i>n</i> = 105)	Prevention-focused review ( <i>n</i> = 114)
Review attitude	6.03 (.93)	5.89 (.89)	5.81 (1.23)	6.28 (.91)
	$t = .77, p = .48$		$t = 2.32, p < .01$	

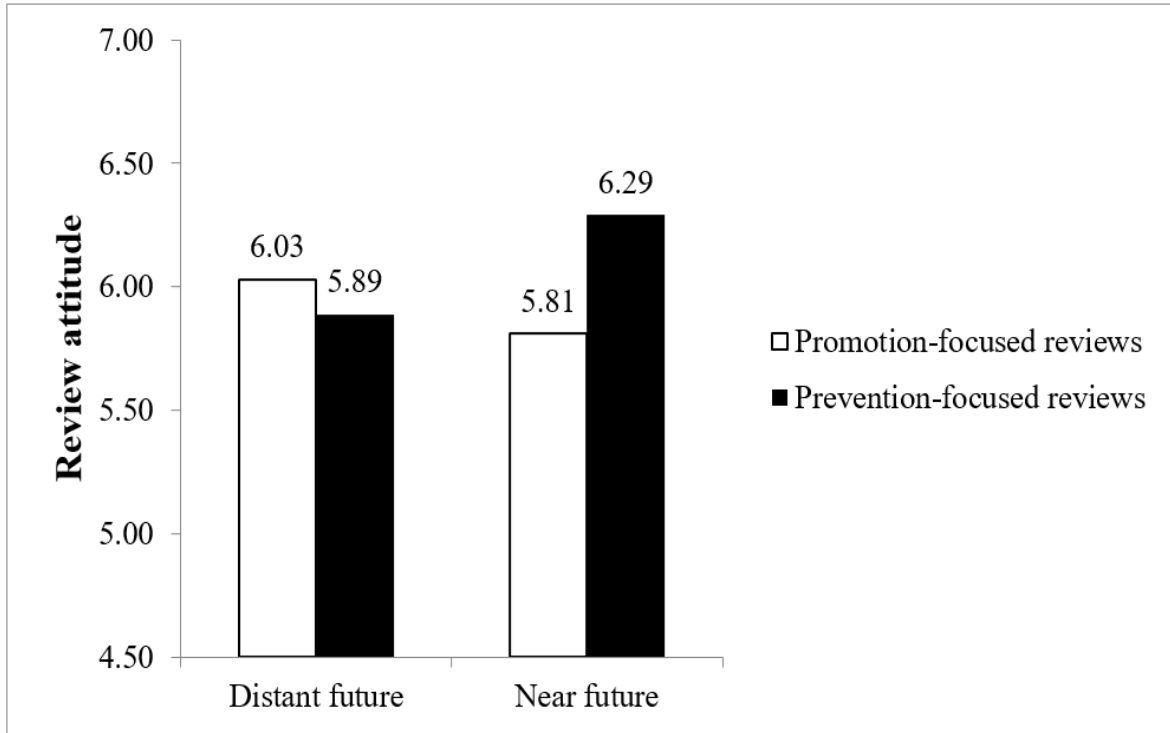


Figure 9. Interaction Effect on Review Attitude

Table 19. Summary of Hypotheses and Results (Study 1)

H1		Hypotheses	Results
H1	H1.1.a	1) When a purchase is temporally distant, promotion-focused consumer reviews will lead to more favorable (a) review attitude than prevention-focused consumer reviews.	Not Supported
	H1.2.a	2) When a purchase is temporally proximal, prevention-focused consumer reviews will lead to more favorable (a) review attitude than promotion-focused consumer reviews.	<b>Supported</b>

## Discussion

The results of Study 1 revealed that participants rated prevention-focused consumer reviews more favorably than promotion-focused consumer reviews when the purchase is proximal. However, their attitudes toward regulatory-focused consumer reviews were not significantly different when the purchase is distant. Although the findings with regard to distant-future condition were in the expected direction, it did not reach statistical significance.

Although the hypotheses were partially supported, testing on a single fictitious athletic shoes might limit the generalizability of the findings. To further generalize and extend the findings from Study 1, a second study was conducted using a different product category (e.g., hotel). Hotel was selected as a service brand because of its importance of online consumer reviews in the tourism industry and consumers often plan their vacations across different time frames. Although Study 1 examined how consumers' attitudinal responses toward online reviews vary depending on consumption time, their attitudinal and behavior responses toward the reviewed brand were not yet explored. Studying other dependent variables would be an important extension of the current research and could demonstrate the robustness of interactive effect of regulatory focus and temporal distance on consumers' responses. Therefore, attitude toward the brand and purchase intention were included as new dependent variables in Study 2.

## Study 2

Study 2 had three main objectives: (1) to generalize the results from Study 1 across a different product category (i.e., hotel), (2) to extend the findings from Study 1 by examining the interactive effects on consumer's attitudinal and behavioral responses (H1), and (3) to further investigate the mediating mechanism—review relevance—underlying the hypothesized effects (H2). Two versions of hotel reviews were developed as the experimental stimuli (see Appendix B). A fictitious brand (i.e., Sunshine) of hotel was used to avoid the potential confounding effects, such as participants' prior brand knowledge, brand familiarity or preexisting attitudes toward the brand. While Study 1 was performed in controlled lab experiment, the Study 2 was conducted in an online experiment. Figure 10 depicts the conceptual model of Study2 and Table 20 displays the hypotheses (H1 and H2).

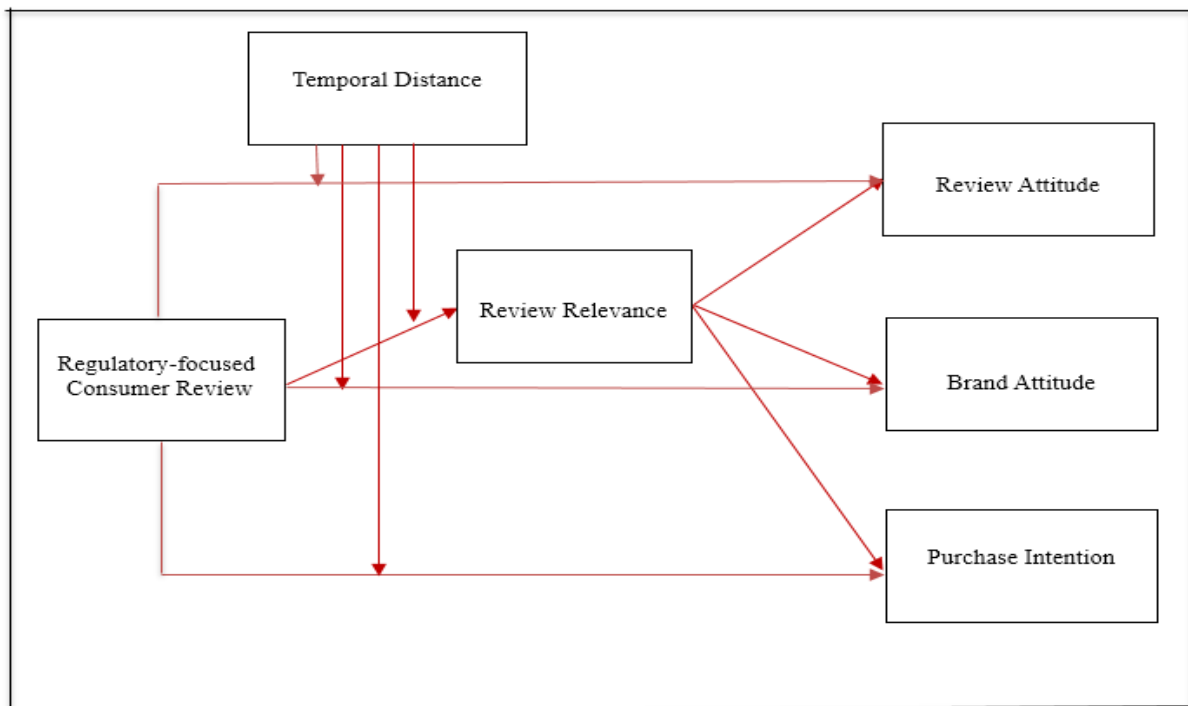


Figure 10. Conceptual Model of Study 2

Table 20. Hypotheses of Study 2

H1/H2		Hypotheses
H1	H1.1.a	<i>When a purchase is temporally distant, promotion-focused consumer reviews will lead to more favorable (a) review attitude than prevention-focused consumer reviews.</i>
	H1.1.b	<i>When a purchase is temporally distant, promotion-focused consumer reviews will lead to more favorable (b) brand attitude than prevention-focused consumer reviews.</i>
	H1.1.c	<i>When a purchase is temporally distant, promotion-focused consumer reviews will lead to greater (c) purchase intention than prevention-focused consumer reviews than prevention-focused consumer reviews.</i>
	H1.2.a	<i>When a purchase is temporally proximal, prevention-focused consumer reviews will lead to more favorable (a) review attitude than promotion-focused consumer reviews.</i>
	H1.2.b	<i>When a purchase is temporally proximal, prevention-focused consumer reviews will lead to more favorable (b) brand attitude than promotion-focused consumer reviews.</i>
	H1.2.c	<i>When a purchase is temporally proximal, prevention-focused consumer reviews will lead to greater (c) purchase intention than promotion-focused consumer reviews.</i>
H2	H.2.a	<i>Review relevance will mediate the interactive effects of regulatory-focused consumer reviews and temporal distance of consumption time on (a) review attitude.</i>
	H.2.b	<i>Review relevance will mediate the interactive effects of regulatory-focused consumer reviews and temporal distance of consumption time on (b) brand attitude.</i>
	H.2.c	<i>Review relevance will mediate the interactive effects of regulatory-focused consumer reviews and temporal distance of consumption time on (c) purchase intention.</i>

## **Research Design and Subjects**

A 2 (regulatory-focused consumer review: promotion vs. prevention) X 2 (temporal distance: distant vs. proximal) between-subjects design was used in the Study 2. A total of 120 college students (60.8% female; mean age = 21.2) enrolled at a major southern university participated in exchange for extra credits (see Table 21 for demographic characteristics of study participants). The use of student sample has been consistent with prior research on regulatory fit (e.g., Kees et al., 2010; Lee & Aaker, 2004; Lee et al., 2010). College student samples are qualified in this experiment because they are one of the largest online shopping groups and frequently search for online information before they purchase products online (Lee & Koo, 2012). It was also suggested that their online shopping behaviors are not significantly different from the general population (Jiang, Chan, Tan, & Chua, 2010). Furthermore, prior studies have successfully achieved the reliability of convenient sample data in tourism and marketing literature (e.g., Kwon & Sung, 2012; Filieri & McLeay, 2013). The experiment was executed online. Although the degree of control over web-based research is lower than for research conducted in a lab environment, existing literature (Krantz & Dalal, 2000) has revealed a close comparative match between the results of psychological experiments in lab situations and over the Internet.

## **Procedure**

The experiment was conducted by the following four steps. First, invitation emails were sent to participants. The invitation emails included the information that explained the purpose of study, time required to complete the survey, and a statement of confidentiality assurance. After

participants clicked on the online survey link, they were randomly assigned to one of the experimental conditions. The cover story informed that the research was about how consumers evaluate online reviews. Second, participants viewed banner ad and scenario with either a proximal- or a distant-future consumption condition. In the proximal (distant) condition, participants were asked to imagine that they were going to trip either in this week (next year) and needed to find an appropriate hotel for the trip. Third, participants were then asked to read consumer reviews on a fictitious hotel brand (i.e., Sunshine). After reading the consumer reviews, participants were asked to complete the self-administrated questionnaire that included measures of review attitude, brand attitude, purchase intention, review relevance, manipulation checks, and demographic information.

Table 21. Demographic Characteristics of Participants of Study 2

Demographics	Mean (SD)	Frequency (N = 120)	Percent
Gender			
Female		73	60.8
Male		47	39.2
Age (N = 120)	21.1 (3.24)		
Under 20		31	25.8
20-24		82	68.4
25-30		3	3.3
Over 30		4	2.5
Ethnic background			
African American		15	12.5
Caucasian American		79	65.8
Hispanic		10	8.3
Asian/pacific islander		7	5.8
Multi-cultural		7	5.8
Others		2	1.7



## Stimulus Materials

**Temporal Distance.** Temporal distance was manipulated by varying whether the hotel reservation took place in the proximal (e.g., this week) or in the distant future (e.g., next year). More specifically, participants were asked to read the following scenario: “Imagine that you are going to book a hotel room this week (next year).” To access manipulation checks for temporal distance, the researcher asked participants two questions anchored with 7-point bipolar items (Kim & Lee, 2008). Specifically, they were instructed to identify how much time they feel left before the trip: (1) very soon or (7) sometimes much later; (1) the near future or (7) the distant future.

**Regulatory Focus.** In order to manipulate the regulatory goals in consumer reviews, two versions of consumer reviews for a fictitious hotel (i.e., Sunshine) were similar with the Pretest 2 and added one more review. The review providers’ names, picture image, product information were kept the same across the two review conditions, but the consumer reviews were framed into either promotion- or prevention-focused. The promotion-focused consumer reviews emphasized attributes of its comfort, privacy, and location, which ensured that hotel guests would maximize positive experiences and benefits. The prevention-focused consumer reviews drew attention to its cleanliness, security, comfort, and staff service, which guaranteed that hotel guests would avoid negative experiences and outcomes (See Appendix D).

To verify manipulation of regulatory focus in consumer reviews, participants were asked to answer the following statements on 7-point scales: Whether the consumer reviews emphasize (1) more ideas about prevention or (7) more ideas about promotion; (1) avoiding something

negative or (7) attaining something positive; and (1) more ideas about protection or (7) more ideas about enhancement (Poel & Dewitte, 2008).

## **Dependent Measures**

Three dependent variables assessed review attitude, brand attitude, and purchase intention. The scales and items were adapted from previous studies. All scales, items, and internal consistency statistics appeared in Table 22. Attitude toward the consumer reviews was measured using 7-point semantic differential items anchored by “negative/positive,” “unfavorable/favorable,” and “bad/good” ( $\alpha = .93$ ) (Lee & Aaker, 2004). Adapted from Coyle and Thorson (2001), attitude toward the brand was assessed on 7-point semantic differential items by asking how participants felt about the brand: “bad/good,” “unfavorable/favorable,” and “dislike/like” ( $\alpha = .94$ ). Purchase intention was measured by three items adopted from Coyle and Thorson (2001): “It is very likely that I will book this hotel,” “I will reserve this hotel for my next vacation,” and “I will definitely try this hotel.” Participants were asked to indicate their agreements with each item on a 7-point Likert scale ( $1 = \text{strongly disagree}$  and  $7 = \text{strongly agree}$ ) ( $\alpha = .92$ ) (Coyle & Thorson, 2001). Finally, perceived relevance of online review was measured using 7-point semantic differential items by asking how participants perceived the online review recommendation: “not personally relevant/personally relevant,” “of little concern to me/ of great concern to me,” and “uninvolving/involving” ( $\alpha = .87$ ) (Zhao & Xie, 2011).

Table 22. Measures and Scale Reliabilities

Name of Scale	Items	Cronbach's $\alpha$
Review attitude	My attitude toward online reviews for the Sunshine hotel is: 1. Negative/positive 2. Unfavorable/favorable 3. Bad/good	.93
Brand attitude	My attitude toward the Sunshine hotel is: 1. Bad/good 2. Unfavorable/favorable 3. Dislike/like	.94
Purchase intention	1. It is very likely that I will book this hotel. 2. I will reserve this hotel for my next vacation. 3. I will definitely try this hotel	.92
Perceived relevance	The consumer reviews are: 1. not personally relevant/personally relevant. 2. of little concern to me/of great concern to me. 3. uninvolving/involving.	.87

## Results

### *Manipulation check*

To assess the manipulation effectiveness of two independent variables, a series of independent sample t-tests were conducted. In all cases, the manipulations were successful. As predicted, participants in the distant-future condition perceived the consumption situation as more temporally distant ( $M = 5.38$ ,  $SD = 1.21$ ), whereas participants in the proximal-future condition regarded consumption situation as more temporally proximal ( $M = 3.86$ ,  $SD = 1.46$ ). The difference between the distant and proximal future conditions was statistically significant,  $t(118) = 4.28$ ,  $p < 0.001$  (See Table 23).

Table 23. T-test Result for Temporal Distance Manipulation Check in Study 2

Measure	Distant future		Near future		$t(df)$	$p$
	M (SD)	n	M (SD)	n		
Temporal distance	5.38 (1.21)	56	3.86 (1.46)	64	4.28 (118)	$p < .001$

The manipulation check data for regulatory focus revealed that participants in the promotion-focused review condition perceived that the reviews were more likely to convey the promotion of positive outcomes ( $M = 5.70$ ,  $SD = 1.07$ ), while those in the prevention-focused review condition considered that the reviews were more likely to convey the prevention of negative outcomes ( $M = 4.47$ ,  $SD = 1.25$ ). The difference between the two regulatory focus conditions was statistically significant,  $t(118) = 5.46$ ,  $p < .001$  (see Table 24). Thus, the manipulation checks were successfully accessed for temporal distance and regulatory focus.

Table 24. T-test Result for Regulatory Focus in Study 2

Measure	Promotion-focused consumer review	n	Prevention-focused consumer review	n	$t(df)$	$p$
	M (SD)		M (SD)			
Regulatory-focused consumer review	5.70 (1.07)	78	4.47 (1.25)	42	5.46 (118)	$p < .001$

### ***Hypotheses Testing***

The researcher first analyzed whether the regulatory-focused consumer review and the temporal distance of the purchase affected review attitude, brand attitude, and purchase intention. A 2 X 2 between-subjects analysis of variance (ANOVA) for each dependent variable was conducted to test the proposed hypotheses.

***Review Attitude.*** A two-way ANOVA yielded that there were no main effects of regulatory-focused consumer reviews ( $F(1, 116) = 2.50, p = .12$ ) and temporal distance ( $F(1, 116) = .71, p = .40$ ) on review attitude. However, there was a significant two-way interaction between regulatory-focused consumer review and temporal distance on review attitude ( $F(1, 116) = 8.14, p < .01$ ) (see Table 25). Furthermore, planned contrasts revealed that the promotion-focused consumer review ( $M_{\text{promotion}} = 6.52, SD = .81$ ) resulted in more favorable review attitude than the prevention-focused consumer review ( $M_{\text{prevention}} = 5.76, SD = 1.11$ ) in the distant future condition ( $t = 2.96, p < .01$ ). However, there were no significant differences in review attitude between promotion-focused consumer review ( $M_{\text{promotion}} = 6.18, SD = .89$ ) and prevention-focused consumer review ( $M_{\text{prevention}} = 6.40, SD = .79$ ) in the proximal future condition ( $t = .95, p = .35$ ) (see Table 26 and Figure 11). Accordingly, H1.1.a was supported, but H1.2.a was not supported.

Table 25. Two-way ANOVA Results for Review Attitude

Source	df	<i>F</i>	<i>p</i>
Regulatory-focused review (RF)	1, 116	2.50	<i>p</i> = .12
Temporal distance (TD)	1, 116	.71	<i>p</i> = .40
<b>RF X TD</b>	<b>1, 116</b>	<b>8.14</b>	<b><i>p</i> &lt; .01</b>

Table 26. Planned Contrast Results for Interaction Effect on Review Attitude

	Distant future		Near future	
	Promotion- focused review ( <i>n</i> = 35)	Prevention- focused review ( <i>n</i> = 21)	Promotion- focused review ( <i>n</i> = 43)	Prevention- focused review ( <i>n</i> = 21)
Review attitude	6.52 (.81)	5.76 (1.11)	6.18 (.89)	6.40 (.79)
	<i>t</i> = 2.96, <i>p</i> < .01		<i>t</i> = .95, <i>p</i> = .35	

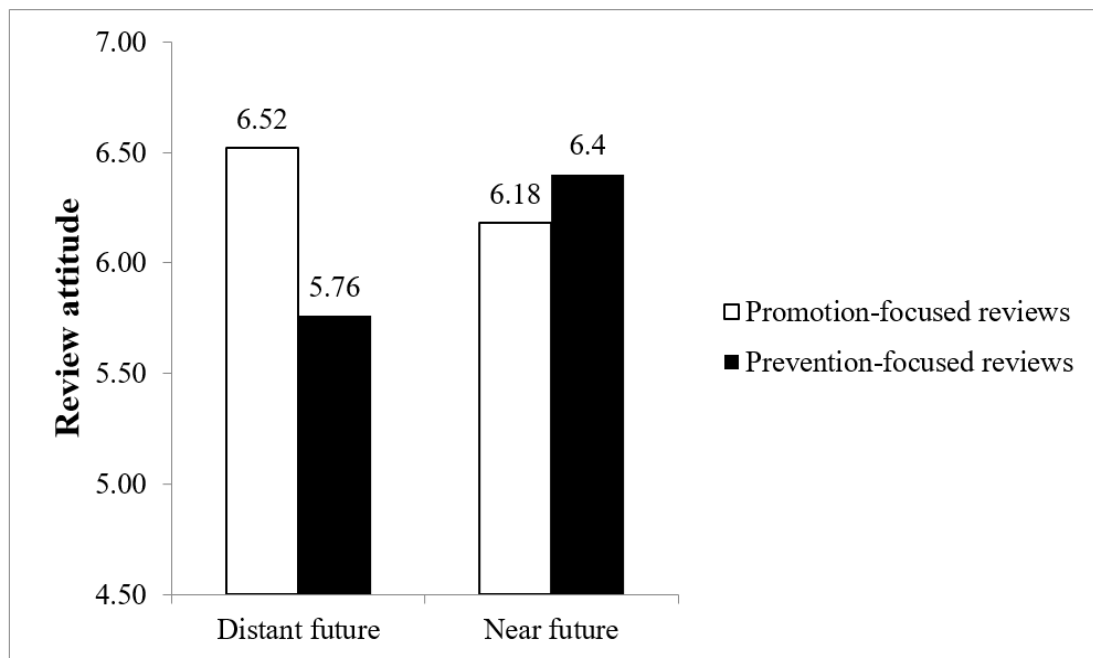


Figure 11. Interaction Effect on Review Attitude

**Brand Attitude.** A two-way ANOVA yielded that there was a significant main effect of regulatory-focused consumer review ( $M_{\text{promotion}} = 6.27$ ,  $SD = .84$ ;  $M_{\text{prevention}} = 5.70$ ,  $SD = 1.09$ ;  $F(1, 116) = 11.14$ ,  $p < .001$ ). However, there was no significant main effect of temporal distance on brand attitude ( $F(1, 116) = 1.58$ ,  $p = .92$ ). The result indicated that promotion-focused consumer reviews lead to more favorable attitudes toward the brand than prevention-focused consumer review. More importantly, the interaction between regulatory focus and temporal distance was statistically significant for brand attitude ( $F(1, 119) = 8.95$ ,  $p < .01$ ) (see Table 27).

Planned contrast revealed that the promotion-focused consumer review ( $M_{\text{promotion}} = 6.42$ ,  $SD = .82$ ) resulted in more favorable brand attitude than the prevention-focused consumer review ( $M_{\text{prevention}} = 5.31$ ,  $SD = 1.11$ ) in the distant future condition ( $t = 9.67$ ,  $p < .01$ ). On the other hand, the effect on brand attitude for the promotion-focused consumer review ( $M_{\text{promotion}} = 6.14$ ,  $SD = .85$ ) remained equally salient with prevention-focused consumer review ( $M_{\text{prevention}} = 6.08$ ,  $SD = .94$ ) when the purchase is proximal ( $t = .031$ ,  $p = .80$ ) (see Table 28 and Figure 12). Therefore, H1.1.b was supported, but H1.2.b was rejected.

Table 27. Two-way ANOVA Results for Brand Attitude

Source	df	<i>F</i>	<i>p</i>
<b>Regulatory-focused review (RF)</b>	<b>1, 116</b>	<b>11.14</b>	<b><i>p</i> &lt; .001</b>
Temporal distance (TD)	1, 116	1.58	<i>p</i> = .92
<b>RF X TD</b>	<b>1, 116</b>	<b>8.95</b>	<b><i>p</i> &lt; .01</b>

Table 28. Planned Contrast Results for Interaction Effect on Brand Attitude.

	Distant future		Near future	
	Promotion- focused review (n = 35)	Prevention- focused review (n = 21)	Promotion- focused review (n = 43)	Prevention- focused review (n = 21)
Brand attitude	6.42 (.82)	5.31 (1.11)	6.14 (.85)	6.08 (.94)
	$t = 9.67, p < .01$		$t = .031, p = .80$	

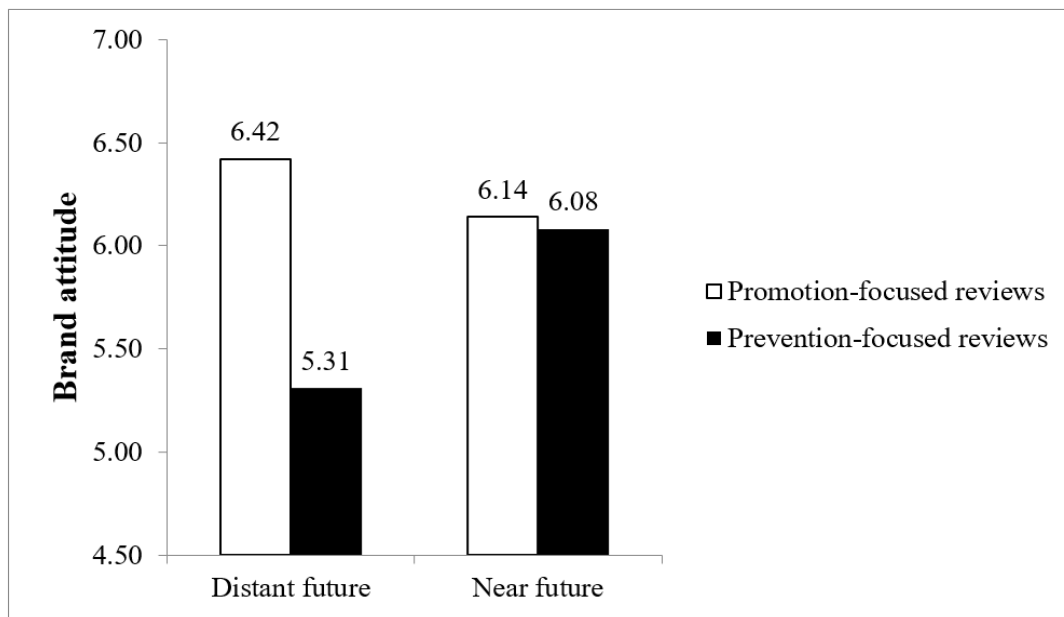


Figure 12. Interaction Effect of Regulatory Focus and Temporal Distance on Brand Attitude

**Purchase Intention.** For purchase intention, the researcher found a significant main effect of temporal distance ( $M_{\text{near}} = 5.83, SD = 1.13; M_{\text{distant}} = 5.32, SD = 1.35, F(1, 116) = 9.34, p < .01$ ). However, there was no significant main effect of regulatory-focused consumer review on purchase intention ( $F(1, 116) = 1.68, p = .20$ ). As predicted, the interaction between regulatory-focused consumer review and temporal distance was statistically significant for purchase intention ( $F(1, 116) = 7.48, p < .01$ ) (see Table 29).



Planned contrasts revealed that participant showed greater purchase intention when they read the promotion-focused consumer review ( $M_{\text{promotion}} = 5.66$ ,  $SD = 1.23$ ) than the prevention-focused consumer review ( $M_{\text{prevention}} = 4.76$ ,  $SD = 1.39$ ) under the distant-future condition ( $t = 2.51$ ,  $p < .01$ ). However, there was no significant difference between the promotion-focused consumer review ( $M_{\text{promotion}} = 5.73$ ,  $SD = 1.07$ ) and prevention-focused consumer review ( $M_{\text{prevention}} = 6.05$ ,  $SD = .93$ ) in the proximal future condition ( $t = .54$ ,  $p = .30$ ). Accordingly, H1.1.c was supported, but H1.2.c was rejected (see Table 30 and Figure 13).

Table 29. Two-way ANOVA Results for Purchase Intention

Source	df	<i>F</i>	sig
Regulatory-focused reviews (RF)	1, 116	1.68	$p = .20$
<b>Temporal distance (TD)</b>	<b>1, 116</b>	<b>9.34</b>	<b><math>p &lt; .01</math></b>
<b>RF X TD</b>	<b>1, 116</b>	<b>8.95</b>	<b><math>p &lt; .01</math></b>

Table 30. Planned Contrast Results for Interaction Effect on Purchase Intention

	Distant future		Near future	
	Promotion-focused review (n = 35)	Prevention-focused review (n = 21)	Promotion-focused review (n = 43)	Prevention-focused review (n = 21)
Purchase intention	5.66 (1.23)	4.76 (1.39)	5.73 (1.07)	6.05 (.93)
	$t = 2.51, p < .01$		$t = .54, p = .30$	

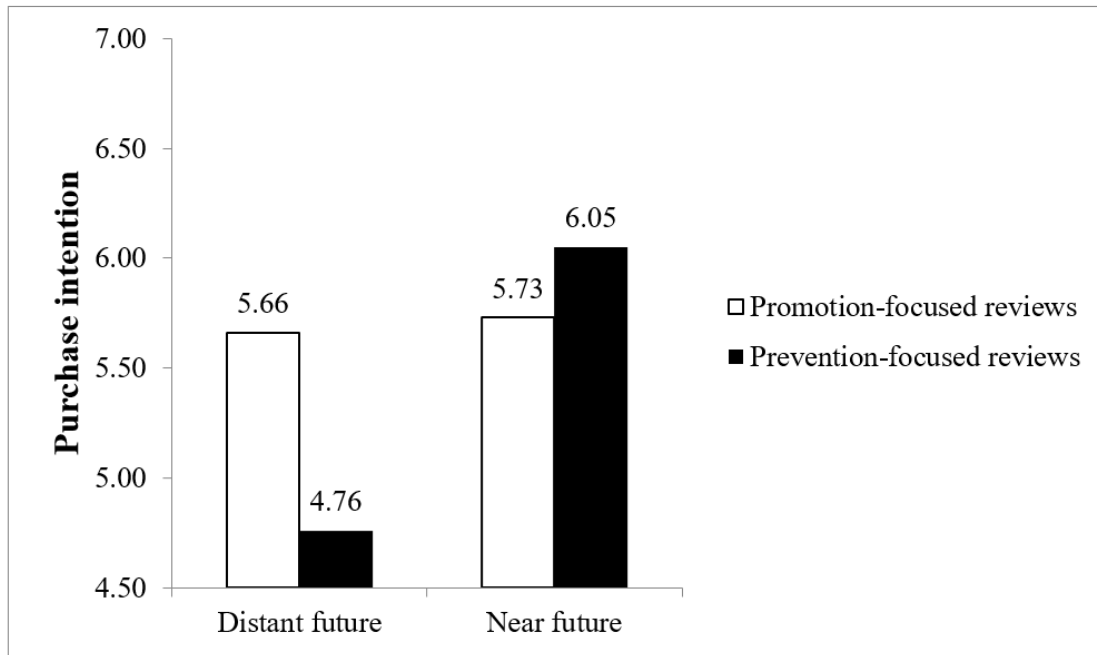


Figure 13. Interaction Effect on Purchase Intention

### ***Mediated Moderation Analysis for Review Relevance***

In H2, it was proposed that the interactive effects between regulatory focus and temporal distance on dependent variables are mediated by review relevance. Figure 14 displays the mediated moderation model for review relevance. The mediation moderation test was analyzed by following two steps. First, a 2x2 between-subjects ANOVA was conducted to test main and interaction effect on review relevance. Second, the bootstrapping method suggested by Preacher and Hayes (2004) was used to test the mediated moderation effect. The Precher and Hayes' (2004) test produces a confidence interval for the indirect effect of the predictor variable on the outcome variable. If the confidence interval includes the zero value, the mediation effect would be not statistically significant. Three separate mediation tests were conducted to examine H2. In each test, interaction term (i.e., regulatory focus x temporal distance) was included as the

independent variable; review attitude, brand attitude, and purchase intention were included as the dependent variables; and review relevance was included as the mediating variable.

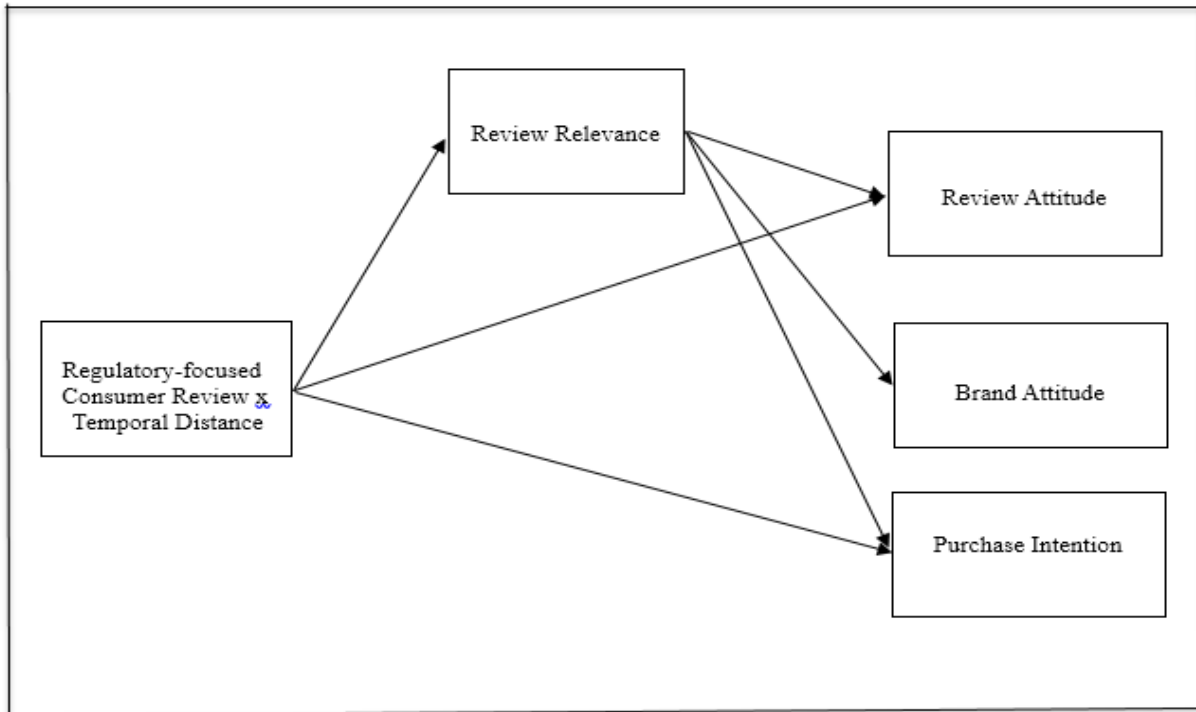


Figure 14. Mediated Moderation Model for Study 2

Participants were first asked to answer the three questions that measure their perceived relevance of online consumer reviews ( $\alpha = .87$ ). A 2 x 2 ANOVA on the relevance score indicated there were no significant main effects of regulatory focus ( $F(1,116) = 1.24, p = .27$ ) and temporal distance ( $F(1,116) = 2.62, p = .19$ ) on review relevance. However, the researcher found a significant two-way interaction between regulatory focus and temporal distance on review relevance ( $F(1,116) = 5.80, p < .05$ ). Follow-up analysis showed that participants in the distant-future condition considered the consumer reviews as more relevant to them when they read promotion-focused consumer reviews ( $M_{\text{promotion}} = 5.50, SD = 1.2$ ) than prevention-focused consumer reviews ( $M_{\text{prevention}} = 4.63, SD = 1.19$ ) ( $F(1,116) = .130, p < .01$ ), whereas there was

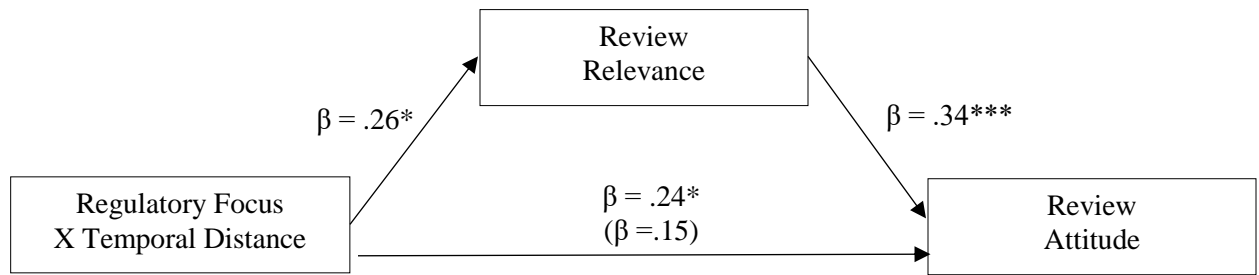
no significant difference in review relevance between the promotion-focused consumer review ( $M_{\text{promotion}} = 5.30$ ,  $SD = 1.43$ ) and prevention-focused consumer review ( $M_{\text{prevention}} = 5.62$ ,  $SD = 1.17$ ) in the near-future condition ( $F(1,116) = 1.71$ ,  $p = .38$ ).

Next, the researcher examined the mediating role of relevance by performing a mediated moderation analysis using the bootstrapping method with bias-corrected confidence estimates (Preacher & Hayes, 2004). The results of this analysis showed that the interaction between regulatory-focused consumer reviews and temporal distance predicted review relevance in the mediator model ( $\beta = .26$ ,  $p < .05$ ). In the dependent variable model, review relevance predicted review attitude ( $\beta = .34$ ,  $p < .001$ ), whereas the direct effect of regulatory focus x temporal distance when including review relevance as a predictor of review attitude was no longer significant ( $\beta = .15$ ,  $p = .10$ ). The indirect effect of regulatory focus x temporal distance on review attitude through review relevance was significant (95%,  $\beta = .24$ ,  $p < .05$ ;  $CI = .021$  to  $.205$ ). Since zero was not included in the lower and upper bounds of this confidence interval (Preacher et al., 2007; Shrout & Bolger, 2002), the interactive effect of regulatory focus and temporal distance on review attitude was fully mediated by review relevance, supporting H2a (see Figure 15).

Regarding to brand attitude, the results of the bootstrapping revealed that the interaction between regulatory-focused consumer review and temporal distance predicted review relevance in the mediator model ( $\beta = .26$ ,  $p < .05$ ). In the dependent variable model, review relevance predicted brand attitude ( $\beta = .36$ ,  $p < .001$ ), whereas the direct effect of regulatory focus x temporal distance interaction when including review relevance as a predictor of brand attitude was no longer significant ( $\beta = .18$ ,  $p = .06$ ). The indirect effect of regulatory focus x temporal distance on brand attitude through review relevance was significant (95%,  $\beta = .27$ ,  $p < .01$ ;  $CI =$

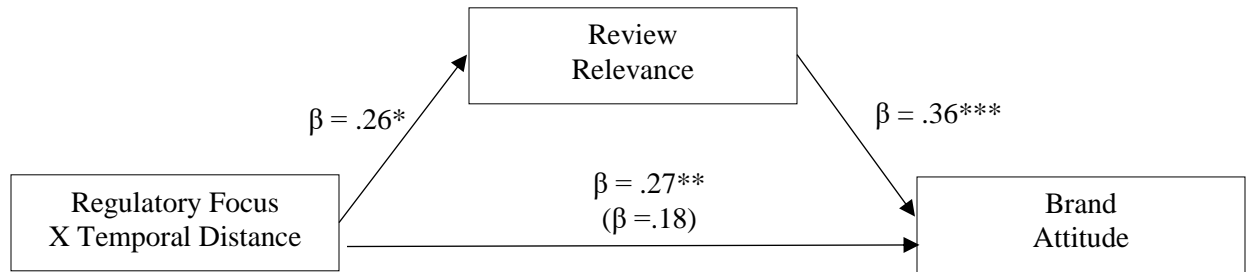
.020 to .198). Since zero was not included in the lower and upper bounds of this confidence interval (Preacher et al., 2007; Shrout & Bolger, 2002), the interactive effect of regulatory focus and temporal distance on brand attitude was fully mediated by review relevance, supporting H2b (see Figure 16).

For purchase intention, the results of the bootstrapping revealed that the interaction between regulatory-focused consumer review and temporal distance predicted review relevance in the mediator model ( $\beta = .26, p < .05$ ). In the dependent variable model, review relevance predicted purchase intention ( $\beta = .54, p < .001$ ), whereas the direct effect of regulatory focus x temporal distance interaction when including review relevance as a predictor of purchase intention was no longer significant ( $\beta = .19, p = .10$ ). The indirect effect of regulatory focus x temporal distance on purchase intention through review relevance was significant (95%,  $\beta = .33, p < .01$ ; CI = .028 to .293). Since zero was not included in the lower and upper bounds of this confidence interval (Preacher et al., 2007; Shrout & Bolger, 2002), the interactive effect of regulatory focus and temporal distance on purchase intention was fully mediated by review relevance, supporting H2c (see Figure 17). Table 31 depicts the hypotheses and results of Study 2.



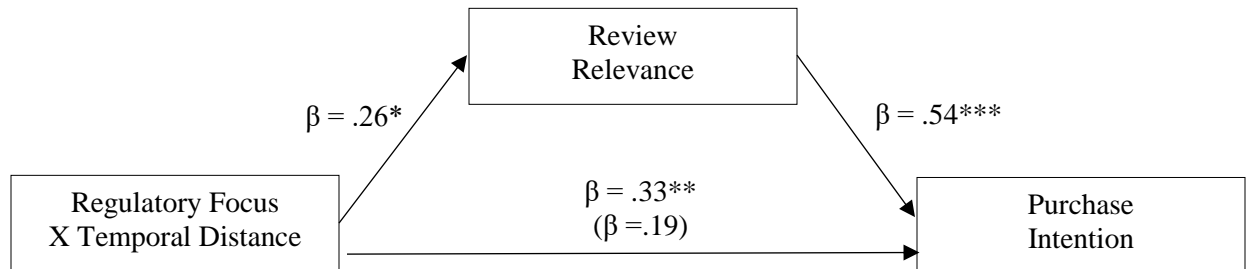
Notes: Bootstrapped 95% CI for indirect effect = [.021 to .205]; the  $\beta$  coefficient for the interaction effect between regulatory focus and temporal distance on review attitude after accounting for the mediator is shown in parentheses; \*  $p < .05$ ; \*\*  $p < .001$ ; \*\*\*  $p < .001$

Figure 15. Mediated Moderation Model on Review Attitude



Notes: Bootstrapped 95% CI for indirect effect = [.020 to .198]; the  $\beta$  coefficient for the interaction effect between regulatory focus and temporal distance on brand attitude after accounting for the mediator is shown in parentheses; \*  $p < .05$ ; \*\*  $p < .001$ ; \*\*\*  $p < .001$

Figure 16. Mediated Moderation Model on Brand Attitude



Notes: Bootstrapped 95% CI for indirect effect = [.028 to .293]; the  $\beta$  coefficient for the interaction effect between regulatory focus and temporal distance on purchase intention after accounting for the mediator is shown in parentheses; \*  $p < .05$ ; \*\*  $p < .001$ ; \*\*\*  $p < .001$ .

Figure 17. Mediated Moderation Model on Purchase Intention

Table 31. Summary of Hypotheses and Results (Study 2)

H1/H2		Hypotheses	Results
H1	H1.1.a	<i>When a purchase is temporally distant, promotion-focused consumer reviews will lead to more favorable (a) review attitude than prevention-focused consumer reviews.</i>	<b>Supported</b>
	H1.1.b	<i>When a purchase is temporally distant, promotion-focused consumer reviews will lead to more favorable (b) brand attitude than prevention-focused consumer reviews.</i>	<b>Supported</b>
	H1.1.c	<i>When a purchase is temporally distant, promotion-focused consumer reviews will lead to greater (c) purchase intention than prevention-focused consumer reviews than prevention-focused consumer reviews.</i>	<b>Supported</b>
	H1.2.a	<i>When a purchase is temporally proximal, prevention-focused consumer reviews will lead to more favorable (a) review attitude than promotion-focused consumer reviews.</i>	Not supported
	H1.2.b	<i>When a purchase is temporally proximal, prevention-focused consumer reviews will lead to more favorable (b) brand attitude than promotion-focused consumer reviews.</i>	Not supported
	H1.2.c	<i>When a purchase is temporally proximal, prevention-focused consumer reviews will lead to greater (c) purchase intention than promotion-focused consumer reviews.</i>	Not supported
H2	H.2.a	<i>Review relevance will mediate the interactive effects of regulatory-focused consumer reviews and temporal distance of consumption time on (a) review attitude.</i>	<b>Supported</b>
	H.2.b	<i>Review relevance will mediate the interactive effects of regulatory-focused consumer reviews and temporal distance of consumption time on (b) brand attitude.</i>	<b>Supported</b>
	H.2.c	<i>Review relevance will mediate the interactive effects of regulatory-focused consumer reviews and temporal distance of consumption time on (c) purchase intention.</i>	<b>Supported</b>

## Discussion

The results of Study 2 extended the findings of Study 1 by revealing that the effects of regulatory-focused consumer reviews on attitudes and purchase intention were moderated by temporal distance of consumption. However, the simple main effects were significant only when the purchase is temporally distant. In particular, consumers are more influenced by promotion-focused consumer reviews than prevention-focused consumer reviews when the purchase is expected to occur in the distant future. However, there was no statistically significant difference between review types when the purchase is in the near future.

Notably, the mediated moderation analysis showed that the review relevance fully mediated the interaction effect between regulatory focus and temporal distance. As expected, this study demonstrated that consumers perceive consumer reviews as more relevant when there is a match between temporal distance and regulatory focus, thereby enhancing favorable attitudes and purchase intention. In particular, the results indicated that participants in the distant-future condition considered the consumer reviews as more relevant to them when they read promotion-focused consumer reviews than prevention-focused consumer reviews, whereas participants in the near-future condition did not show a significant difference in review relevance between two review types under the near-future condition.

Taken together, Study 2 results confirmed that matching regulatory focus with temporal distance could induce favorable review attitude, brand attitude, and purchase intention. The Study 3 further explored how consumers' individual differences, such as temporal orientation, moderate the effects of regulatory-focused reviews on consumers' review evaluations. In addition, the Study 3 examined if the regulatory fit mediates the hypothesized interaction effects on dependent variables.



### **Study 3**

Three objectives guided the design of Study 3. First, the Study 3 aimed to generalize the results from the first two studies in a more realistic setting using hotel websites. A hotel was selected due to the practical importance of online consumer reviews in the lodging industry. A fictitious hotel brand (Salinger) was selected to avoid possible confounding effects of existing hotel name. Two versions of hotel websites were developed using wix.com as the experimental stimuli (see Appendix E). One website included consumer reviews that were framed on promotion-focused, whereas another website displayed consumer reviews that were framed on prevention-focused.

The second purpose of Study 3 was to examine how individual characteristics, such as temporal orientation, moderate the consumers' responses toward regulatory-focused consumer reviews. While first two studies used the situationally primed temporal distance as a moderator, Study 3 extended the findings of studies by employing individual personality traits of temporal orientation. In addition, regulatory fit was included as a mediator between the interaction term and dependent variables.

The literature suggested that consumers tend to experience regulatory fit when there is a match between regulatory goals and temporal orientation, which in turn would lead to favorable attitudinal and behavioral responses (Higgins, 2006; Lee & Higgins, 2009; Lee et al., 2010). In this dissertation, it was expected that present-oriented consumers tend to perceive a greater regulatory fit when they read prevention-focused consumer reviews. Conversely, future-oriented consumers are more likely to perceive a greater regulatory fit when they read promotion-focused consumer reviews.

Lastly, the Study 3 aimed to provide the theoretical explanation for the effects of regulatory fit on the formation of attitude toward the consumer review and brand as well as purchase intention. To assess the hypothesized relationships among latent variables (regulatory fit, review attitude, brand attitude, and purchase intention), SEM was performed with AMOS 22. In general, SEM has been acknowledged as a multivariate technique suited for identifying the direct and indirect effects among latent variables as well as for determining whether the variances and covariance implied by the proposed model are reasonably close to those observed data (Kline, 2005). The Study 3 was added from the original IRB and revised IRB was reviewed and exempted by the UTK Institutional Review Board prior to the study (Approval No: **UTK IRB-15-02095-XP**) (Appendix H). Figure 18 depicts the conceptual model of Study 3 and Table 32 displays the hypotheses (H3 and H4).

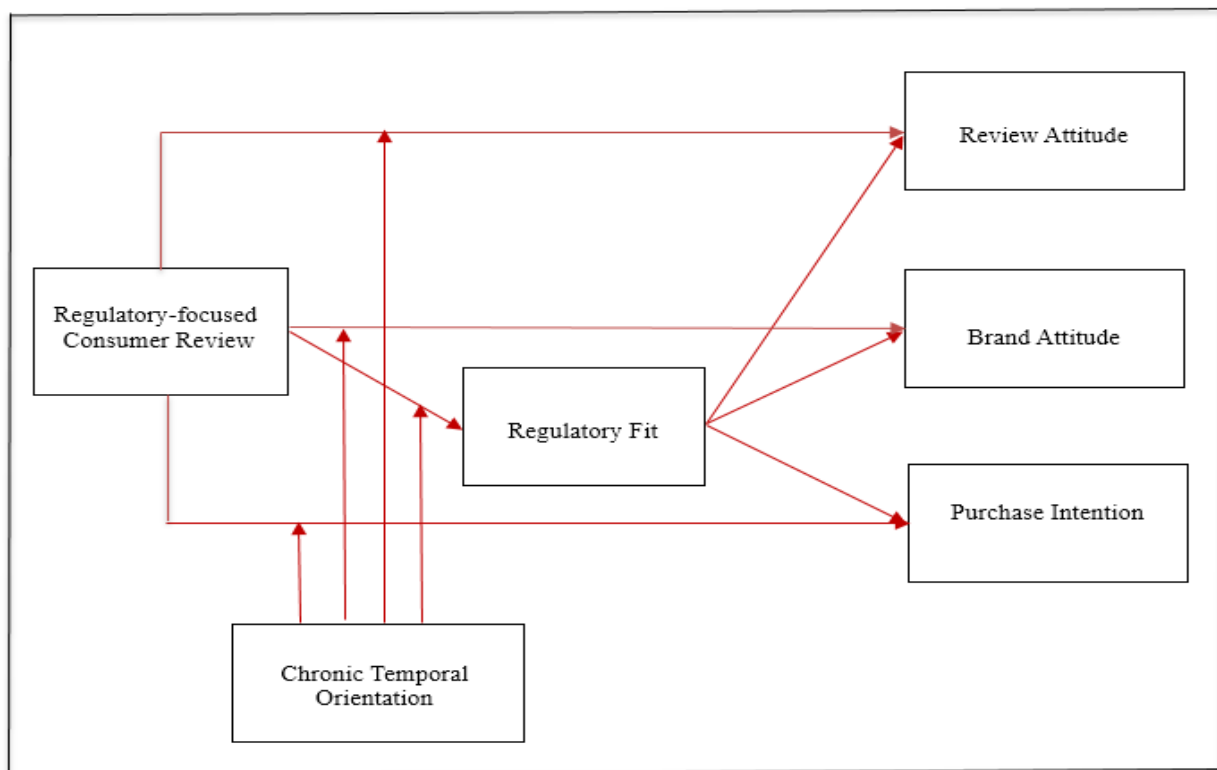


Figure 18. Conceptual Model of Study 3

Table 32. Hypotheses of Study 3

H3/H4		Hypotheses
H3	H3.1.a	<i>Future-oriented consumers will show more favorable (a) review attitude when they are exposed to promotion-focused consumer reviews than prevention-focused consumer reviews.</i>
	H3.1.b	<i>Future-oriented consumers will show more favorable (b) brand attitude when they are exposed to promotion-focused consumer reviews than prevention-focused consumer reviews.</i>
	H3.1.c	<i>Future-oriented consumers will show greater (c) purchase intention when they are exposed to promotion-focused consumer reviews than prevention-focused consumer reviews.</i>
	H3.2.a	<i>Present-oriented consumers will show more favorable (a) review attitude when they are exposed to prevention-focused consumer reviews than promotion-focused consumer reviews.</i>
	H3.2.b	<i>Present-oriented consumers will show more favorable (b) brand attitude when they are exposed to prevention-focused consumer reviews than promotion-focused consumer reviews.</i>
	H3.2.c	<i>Present-oriented consumers will show greater (c) purchase intention when they are exposed to prevention-focused consumer reviews than promotion-focused consumer reviews.</i>
H4	H.4.a	<i>Regulatory fit will mediate the interactive effects of regulatory-focused consumer reviews and consumers' chronic temporal orientation on (a) review attitude.</i>
	H.4.b	<i>Regulatory fit will mediate the interactive effects of regulatory-focused consumer reviews and consumers' chronic temporal orientation on (b) brand attitude.</i>
	H.4.c	<i>Regulatory fit will mediate the interactive effects of regulatory-focused consumer reviews and consumers' chronic temporal orientation on (c) purchase intention.</i>

## Research Design and Subject

The Study 3 comprised a 2 (regulatory-focused consumer review: prevention vs. promotion) X 2 (chronic temporal orientation: present vs. future) between-subjects design. The experiment was executed online. The regulatory goals in consumer reviews were manipulated and chronic temporal orientation was measured.

Instead of using a student sample, the experiment 3 recruited online consumer panels. A purposive sampling technique was employed to select non-student panel pools that represent the U.S. population who aged from 19 to 70 years. They were recruited from Qaultrics.com, a web-based market research agency, through the use of online survey software. The company collected data during three days, from March 28 to March 30, 2016. A total of 393 US-based consumer panels completed the research questionnaire online in exchange for a small monetary incentive (see the Table 33 for demographic information of study participants).

The analysis of respondents' demographic information showed that gender (female-47.3%) was equally distributed. The respondents' age ranged from 18 to 78, and the proportion of the respondents was distributed highly in 25-29 (26.9%) and 30-34 (26.2%) age group, approximately half of the total respondents. The majority of respondents (43.3%) had bachelor's degree and some college or vocational school (33.6%). As for ethnicity, the largest number was represented by Caucasian (74%), followed by Hispanic (11.2%), African-American (7.1%), and Asian/Pacific Islander (4.8%). With respect to household income, the respondents represented a range of income group fairly evenly: 18.9% had incomes of \$30,000 to 44,999, 24.7% had \$45,000 to 59,999, and 21.6% had \$75,000 or more.

Table 33. Demographic Characteristics of Participants for Study 3

Demographics	Mean (SD)	Frequency (N = 393)	Percent
Gender			
Female		186	47.3
Male		207	52.7
Age (N = 398)	32.7 (3.24)		
Under 20		3	.8
20-24		44	11.2
25-29		106	26.9
30-34		103	26.2
35-39		56	14.3
40-44		40	12.5
Over 45		32	8.1
Ethnic background			
African American		28	7.1
Caucasian American		291	74
Hispanic		44	11.2
Asian/pacific islander		19	4.8
Multi-cultural		6	1.5
Others		5	1.3
Education			
Less than high school		0	0
High school or equivalent		41	10.4
Some College or Vocational School		132	33.6
Bachelor's degree		170	43.3
Master's degree/professional degree		43	10.9
Doctorate degree		7	1.8
Income			
Below \$14,999		31	7.9
\$15,000 - \$ 29,999		59	15
\$30,000 - \$44,999		97	24.7
\$45,000 - \$59,999		71	18.1
\$60,000 - \$ 74,999		50	12.7
\$75,000 or more		85	21.6

## **Procedure**

The experiment was conducted by the following steps. Invitation emails were sent to participants. The invitation email included the information that explained the purpose of study, time required to complete the survey, and a statement of confidentiality assurance. After participants clicked on the online survey link, they were randomly assigned to one of the experimental conditions. The cover story informed that the research is about how consumers evaluate online consumer reviews. Participants were asked to imagine that they were planning a vacation and needed to find an appropriate hotel for their vacation. Next, they were asked to click on the fictitious hotel website link and then carefully read the consumer reviews from the website. To increase external validity, all the reviews were extracted from real hotel websites and analyzed through content analysis. The consumer reviews for hotel were identical for Study 2 and Study 3. The review providers' names and hotel picture images were kept the same across the two review conditions, but the consumer reviews were framed on either prevention- or promotion-focused. After they return to survey, participants were asked to read the same consumer reviews before answering the questionnaires. Finally, participants were asked to complete the self-administrated questionnaire that included measures of chronic temporal orientation, attitude toward the online review, attitude toward the brand, purchase intention, regulatory fit, manipulation check (i.e., regulatory-focused consumer review), and demographic information.

## Stimulus Material

**Regulatory Focus.** In order to manipulate the regulatory focus, two hotel websites were professionally created using wix.com (see Appendix E). The reviewers' names, picture image of hotel rooms and accommodations, product information (e.g., price, location, and amenity) were kept the same across the two experimental conditions, but the consumer reviews were framed on either promotion- or prevention-focused. The same consumer reviews were used with Study 2. The prevention-focused reviews drew attention to its cleanliness, security, comfort, and staff service, which guaranteed that guests would avoid negative experiences and outcomes (e.g., excessive noise, privacy concern, security, and avoiding a terrible time or a bunch of hassles). The promotion-focused reviews emphasized features and attributes to its comfort, privacy, and location, which ensured that guests would maximize positive experiences and benefits (e.g., a wonderful location, maximum privacy, and more sleeping comfort).

The manipulation check questions of the regulatory goal reviews in Study 3 were identical to those in Study 1 and 2. To verify manipulation check for regulatory-focused consumer review, participants were asked to answer the following statements on 7-point scales adopted from Poel and Dewitte (2008): Whether the consumer reviews emphasize (1) more ideas about prevention or (7) more ideas about promotion; (1) avoiding something negative or (7) attaining something positive; and (1) more ideas about protection or (7) more ideas about enhancement

**Temporal Orientation.** Temporal orientation was included as a moderator that would affect the effects of regulatory-focused consumer reviews on review attitude, brand attitude, and

purchase intention. Consistent with past research (Kees et al., 2010; Strathman et al., 1994; Tangari et al., 2010), chronic temporal orientation was measured using 7-items CFC scale (3-items for future-oriented and 4 items for present-oriented). The researcher asked participants to indicate the degree to which each statement was an appropriate description of themselves personally, with responses using 7-point Likert scale (1 = strongly disagree; 7 =strongly agree).

Some examples of items measuring future-orientation items included: “I consider how things might be in the future, and try to influence those things with my day to day behavior” and “I think it is more important to perform a behavior with important distant consequences than a behavior with less-important immediate consequences.” In contrast, present-orientation items included: “My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions” and “I only act to satisfy immediate concerns, figuring the future will take care of itself.” For the three-item future-orientation measure, coefficient  $\alpha$  was .82 and for the four-point present orientation scale coefficient,  $\alpha$  was .83. Thus, the reliabilities were acceptable.

Participants’ ratings along future-orientation items and present-oriented items were averaged to create a composite index of dominant temporal orientation by subtracting the present-orientation scores from the future-orientation scores. It is important to note that high scores reflect a relative stronger future-orientation than present-orientation. Based on a median split of measure of dominant temporal orientation, participants were categorized into a future-oriented and present-oriented subgroup (Lockwood, Jordan, & Kunda, 2002).



## Dependent Measures

Study 3 dependent variables (i.e., attitude toward the review, attitude toward the brand, and purchase intention) were identical to those in Study 2. Attitude toward the consumer reviews was measured using three, 7-point semantic differential items anchored by “negative/positive,” “unfavorable/favorable,” and “bad/good” ( $\alpha = .93$ ) (Lee & Aaker, 2004). Adapted from Coyle and Thorson (2001), attitude toward the brand was assessed on 7-point semantic differential items by asking how participants felt about the brand: “bad/good,” “unfavorable/favorable,” and “dislike/like ( $\alpha = .94$ ).” Purchase intention was measured by three items adopted from Coyle and Thorson (2001): “It is very likely that I will buy this brand,” “I will purchase this brand the next time I need a product,” and “I will definitely try brand.” Participants were asked to indicate their agreement with each item on a 7-point Likert scale ( $1 = \text{strongly disagree}$  and  $7 = \text{strongly agree}$ ) ( $\alpha = .92$ ) (Coyle & Thorson, 2001).

In Study 3, regulatory fit was expected to mediate the interactive effects of regulatory focus and chronic temporal orientation on dependent variables. Thus, consumers’ perception of regulatory fit was measured using four items, 7-point Likert scale ( $1 = \text{strongly disagree}$ ;  $7 = \text{strongly agree}$ ) (Khajehzadeh et al., 2014; Lee et al., 2010). These scales were modified as follows: “The online review makes me feel right about booking it,” “The online review is just right for me,” “The online review makes me feel motivated to continue my visit,” and “The online review keeps me engaged in my main motivation.” The reliability of the regulatory fit scale was acceptable ( $\alpha = .91$ ). All scales, items, and internal consistency statistics appear in Table 34.

Table 34. Measures and Scale Reliabilities

Name of Scale	Items	Cronbach's $\alpha$
Review attitude	My attitude toward online reviews for the SALINGER hotel is: 1. Negative/positive 2. Unfavorable/favorable 3. Bad/good	.93
Brand attitude	My attitude toward the SALINGER hotel is: 1. Bad/good 2. Unfavorable/favorable 3. Dislike/like	.94
Purchase intention	1. It is very likely that I will book this hotel. 2. I will reserve this hotel for my next vacation. 3. I will definitely try this hotel.”	.92
Regulatory fit	I would say the consumer reviews for the Salinger hotel: 1. The consumer reviews make me feel right about booking it. 2. The consumer reviews are just right for me. 3. The consumer reviews make me feel motivated to continue my visit. 4. The consumer reviews keep me engaged in my main motivation.	.91
Chronic temporal orientation	1. I consider how things might be in the future, and try to influence those things with my day to day behavior. (Future-oriented) 2. I only act to satisfy immediate concerns, figuring the future will take care of itself. (Future-oriented) 3. I am willing to sacrifice my immediate happiness or well-being on order to achieve future outcomes. (Future-oriented) 4. I think it is more important to perform a behavior with important distant consequences than a behavior with less-important immediate consequences. (Present-oriented) 5. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions. (Present-oriented) 6. I think that sacrificing now is usually unnecessary since future outcome can be dealt with a later time. (Present-oriented) 7. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes. (Present-oriented)	.82     .83

## Results

### *Manipulation Check*

To assess manipulation checks for the regulatory goals in consumer reviews, an independent sample t-tests was performed. The manipulation check data for regulatory-focused consumer reviews revealed that participants in the promotion-focused review condition perceived that the consumer reviews conveyed the promotion of positive outcomes ( $M = 5.44$ ,  $SD = 1.47$ ). Participants in the prevention-focused review condition perceived that the consumer reviews conveyed the prevention of negative outcomes ( $M = 4.55$ ,  $SD = 1.76$ ). The difference between the two regulatory focus conditions was statistically significant,  $t(391) = 5.30$ ,  $p < .001$ . Thus, the results of an independent t-test confirmed successful manipulations for regulatory goals in consumer reviews (see Table 35).

Table 35. T-test Result for Regulatory Focus in Study 3

Measure	Promotion-focused consumer review		Prevention-focused consumer review		<i>t</i>	<i>p</i>
	M (SD)	n	M (SD)	n		
Regulatory- focused consumer review	5.44 (1.47)	178	4.55 (1.76)	215	5.30	$p < .001$

### *Hypothesis Testing*

The hypotheses for Study 3 were proposed to examine whether consumers' chronic temporal orientation moderates the effects of the regulatory-focused consumer reviews on review attitude, brand attitude, and purchase intention (H4). First of all, a two-way ANOVA was performed to assess these potential interactions on each dependent variable. The independent

variables were regulatory-focused consumer reviews and consumers' chronic temporal orientation and dependent variables were review attitude, brand attitude, and purchase intention.

**Review Attitude.** A 2 (regulatory-focused consumer review: prevention vs. promotion) X 2 (chronic temporal orientation: present vs. future) ANOVA was also first conducted to assess these potential interactions on review attitude. ANOVA results showed that there was a significant main effect of chronic temporal orientation ( $F(1, 382) = 4.13, p < .05$ ) on review attitude. However, there was no significant main effect of regulatory-focused consumer reviews ( $F(1, 382) = 1.14, p = .29$ ) on review attitude.

Most importantly, the researcher found that there was a significant two-way interaction between regulatory-focused consumer review and chronic temporal orientation on review attitude ( $F(1, 382) = 6.50, p < .01$ ) (see Table 36). Specifically, planned contrasts showed that future-oriented consumers ( $M_{\text{future}} = 6.71$ ) reported more favorable attitudes toward consumer reviews than present-oriented consumers ( $M_{\text{present}} = 6.26$ ) when exposed to promotion-focused consumer reviews ( $t = 8.23, p < .01$ ). In contrast, there were no significant differences between future-oriented consumers ( $M_{\text{future}} = 6.45$ ) and present-oriented consumers ( $M_{\text{present}} = 6.59$ ) for review attitude when they were exposed to prevention-focused consumer reviews ( $t = 1.01, p = .16$ ) (see Table 37 and Figure 19). Accordingly, H3.1.a was supported and H3.2.a was not supported.

Table 36. Two-way ANOVA Results for Review Attitude

Source	df	<i>F</i>	<i>p</i>
Regulatory-focused review (RF)	1, 382	1.14	<i>p</i> = .29
<b>Chronic temporal orientation (CTO)</b>	<b>1, 382</b>	<b>4.13</b>	<b><i>p</i> &lt; .05</b>
<b>RF X CTO</b>	<b>1, 382</b>	<b>6.50</b>	<b><i>p</i> &lt; .01</b>

Table 37. Planned Contrast Results for Interaction Effect on Review Attitude

	Promotion-focused review		Prevention-focused review	
	Future orientation	Present orientation	Future orientation	present orientation
	(n = 77)	(n = 101)	(n = 95)	(n = 120)
Review attitude	6.71	6.26	6.45	6.59
	<i>t</i> = 8.23, <i>p</i> < .01		<i>t</i> = 1.01, <i>p</i> = .16.	

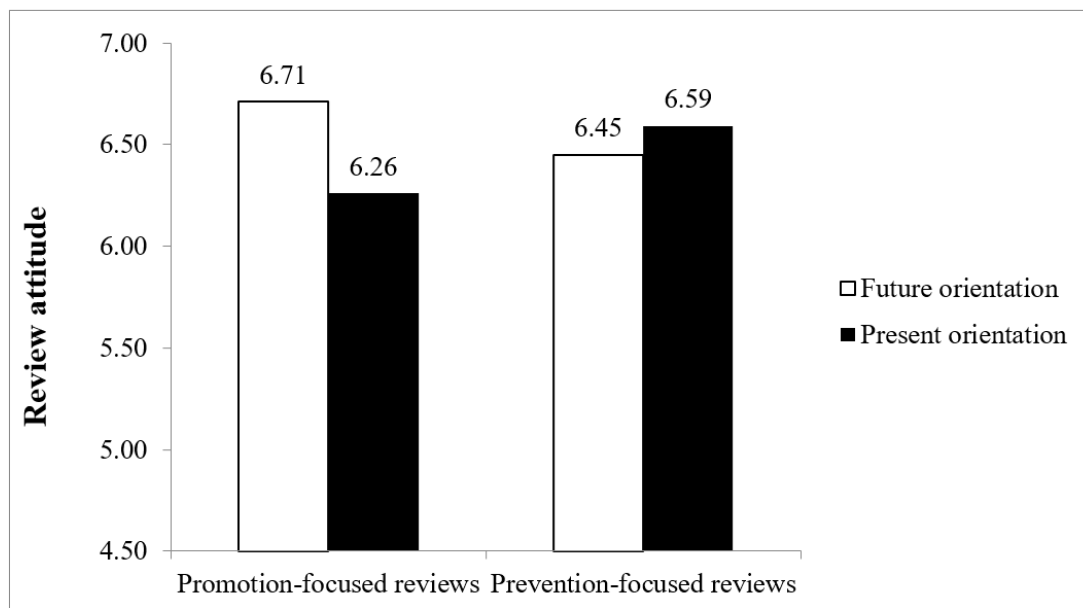


Figure 19. Interaction Effect on Review Attitude

**Brand Attitude.** Regarding attitude toward the brand, a two-way ANOVA was performed to assess these potential interactions on brand attitude. The results showed that there were no significant main effects of regulatory-focused consumer review ( $F(1, 382) = 1.50, p = .22$ ) and chronic temporal orientation ( $F(1, 382) = 1.34, p = .25$ ) on brand attitude. However, ANOVA results showed that there was a significant two-way interaction between regulatory-focused consumer reviews and chronic temporal orientation on brand attitude ( $F(1, 382) = 8.40, p < .01$ ) (see Table 38).

Specifically, planned contrasts showed that future-oriented consumers ( $M_{\text{future}} = 6.60$ ) reported more favorable attitudes toward the brand than present-oriented consumers ( $M_{\text{present}} = 6.14$ ) when exposed to promotion-focused consumer reviews ( $t = 5.98, p < .01$ ). In contrast, present-oriented consumers ( $M_{\text{present}} = 6.44$ ) reported more favorable attitudes toward the brand than future-oriented consumers ( $M_{\text{future}} = 6.19$ ) when they read prevention-focused consumer reviews ( $t = 2.19, p < .05$ ) (see Table 39 and Figure 20). Therefore, H 3.1.b and H 3.2.b were supported.

Table 38. Two-way ANOVA Results for Brand Attitude

Source	df	<i>F</i>	<i>p</i>
Regulatory-focused review (RF)	1, 382	1.50	$p = .22$
Chronic temporal orientation (CTO)	1, 382	1.34	$p = .25$
<b>RF X CTO</b>	<b>1, 382</b>	<b>8.40</b>	<b><math>p &lt; .01</math></b>

Table 39. Planned Contrast Results for Interaction Effect on Brand Attitude

	Promotion-focused review		Prevention-focused review	
	Future orientation	Present orientation	Future orientation	present orientation
	(n = 77)	(n = 101)	(n = 95)	(n = 120)
Brand attitude	6.44	6.19	6.14	6.60
	$t = 2.19, p < .05$		$t = 5.98, p < .01$	

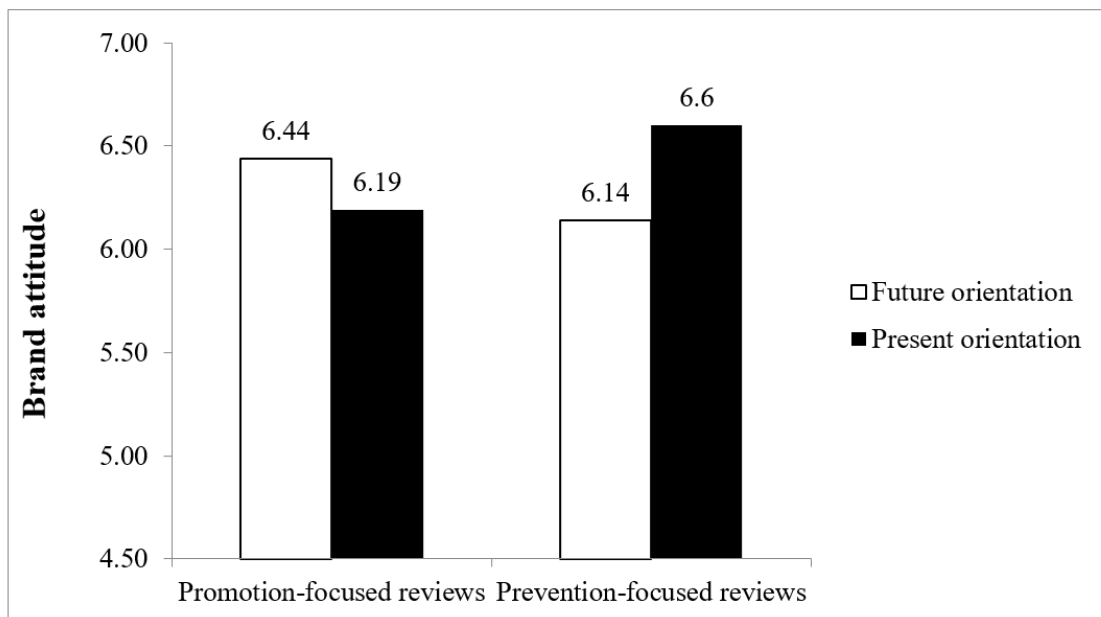


Figure 20. Interaction Effect on Brand Attitude

**Purchase Intention.** A two-way ANOVA was conducted and the results showed that there were no significant main effects of regulatory-focused consumer review ( $F(1, 382) = .37, p = .55$ ) and chronic temporal orientation ( $F(1, 382) = .82, p = .37$ ) on purchase intention. However, as predicted, the interaction between regulatory focus and chronic temporal orientation was statistically significant for purchase intention ( $F(1, 382) = 8.26, p < .01$ ) (see Table 40). Follow-up analysis revealed that future-oriented consumers ( $M_{\text{future}} = 6.36$ ) reported greater purchase intention than present-oriented consumers ( $M_{\text{present}} = 5.90$ ) when exposed to promotion-focused consumer reviews ( $t = 4.28, p < .01$ ). In contrast, present-oriented consumers ( $M_{\text{present}} = 6.28$ ) showed greater purchase intention than future-oriented consumers ( $M_{\text{future}} = 5.71$ ) when they read prevention-focused consumer reviews ( $t = 7.73, p < .01$ ) (see Table 41 and Figure 21). Therefore, H 3.1.c and H 3.2.c were supported.

Table 40. Two-way ANOVA Results for Purchase Intention

Source	df	<i>F</i>	<i>p</i>
Regulatory-focused reviews (RF)	1, 382	.37	$p = .55$
Chronic temporal orientation (CTO)	1, 382	.82	$p = .37$
<b>RF X CTO</b>	<b>1, 382</b>	<b>8.26</b>	<b><math>p &lt; .01</math></b>

Table 41. Planned Contrast Results on Purchase Intention

	Promotion-focused review		Prevention-focused review	
	Future orientation ( $n = 77$ )	Present orientation ( $n = 101$ )	Future orientation ( $n = 95$ )	present orientation ( $n = 120$ )
Purchase intention	6.36	5.90	5.71	6.28
	$t = 4.28, p < .01$		$t = 7.73, p < .01$	



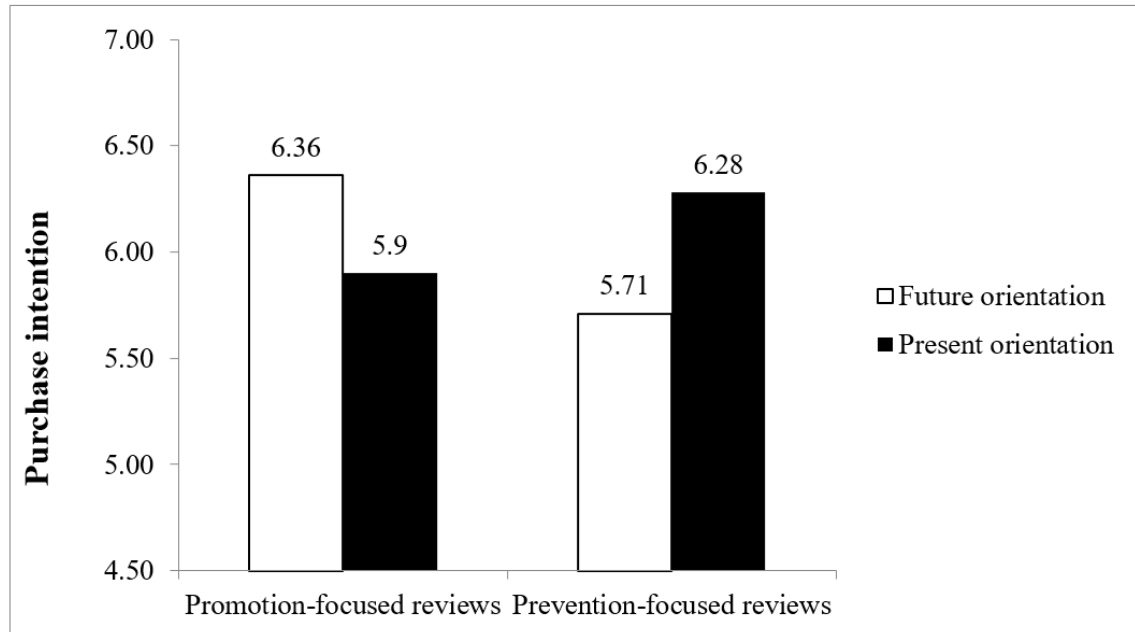


Figure 21. Interaction Effect of Purchase Intention

### ***Mediated Moderation Analysis for Regulatory Fit***

This study investigated whether the interaction between regulatory-focused consumer review and individual temporal orientation was mediated by regulatory fit in leading to favorable attitudes and behavioral intention. To test whether regulatory fit mediated the interaction of hypotheses effects on dependent variables, the researcher conducted a mediated moderation analysis using a bootstrapping procedure that generated a sample size of 5,000 (Preacher and Hayes 2004). Figure 22 depicts the mediated moderation model for Study 3.

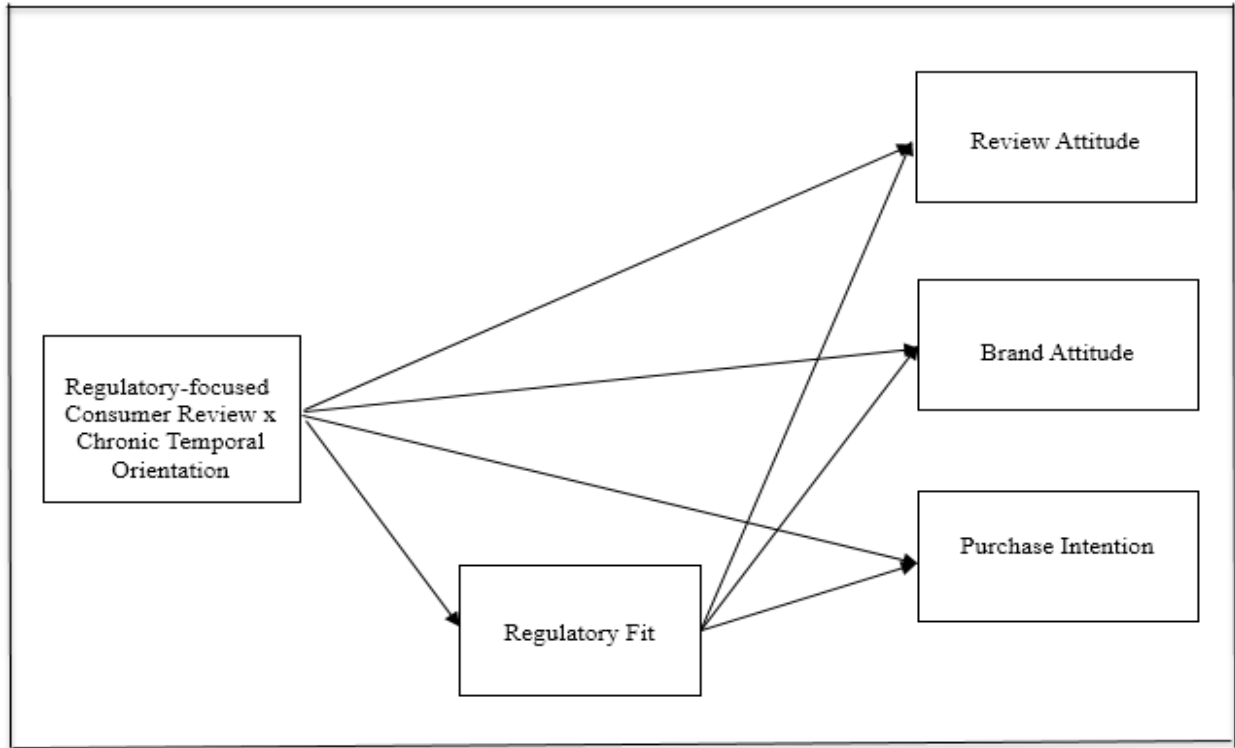


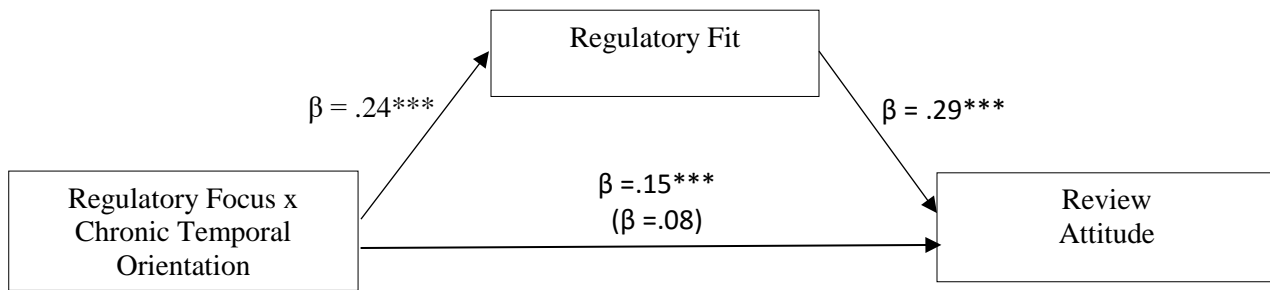
Figure 22. Mediated Moderation Model for Study 3

The results of ANOVA yielded no significant main effects of regulatory-focused consumer reviews ( $F(1, 382) = .69, p = .41$ ) and chronic temporal orientation ( $F(1, 382) = .27, p = .60$ ) on regulatory fit. As predicted, however, there was a significant two-way interaction between regulatory-focused consumer review and chronic temporal orientation on regulatory fit ( $F(1, 382) = 6.10, p < .05$ ). To better understand the two-way interaction, planned contrast analysis was conducted. Subsequent contrast analysis showed that regulatory fit was greater for future-orientated consumers ( $M_{\text{future}} = 5.92$ ) than present-oriented consumers ( $M_{\text{present}} = 5.57$ ) when they were exposed to promotion-focused consumer reviews ( $t = 2.20, p < .05$ ). On the other hand, present-oriented consumers ( $M_{\text{present}} = 5.92$ ) reported higher mean rating regarding regulatory fit than future-oriented consumers ( $M_{\text{future}} = 5.53$ ) when they read prevention-focused consumer reviews ( $t = 3.32, p < .01$ ).

Bootstrapping analysis results showed that the interaction between regulatory-focused consumer review and chronic temporal orientation predicted regulatory fit in the mediator model ( $\beta = .24, p < .001$ ). In the dependent variable model, regulatory fit predicted review attitude ( $\beta = .29, p < .001$ ), whereas the direct effect of regulatory focus x chronic temporal orientation interaction was no longer significant ( $\beta = .08, p = .08$ ) when including regulatory fit as a predictor of review attitude. The indirect effect of regulatory focus x chronic temporal orientation on review attitude through regulatory fit was significant (95%,  $\beta = .15, p < .001$ ; CI = .027 to .132). Since zero was not included in the lower and upper bounds of this confidence interval (Preacher et al., 2007; Shrout & Bolger, 2002), the interactive effect of regulatory focus and chronic temporal orientation on review attitude was fully mediated by regulatory fit, supporting H4a (see Figure 23).

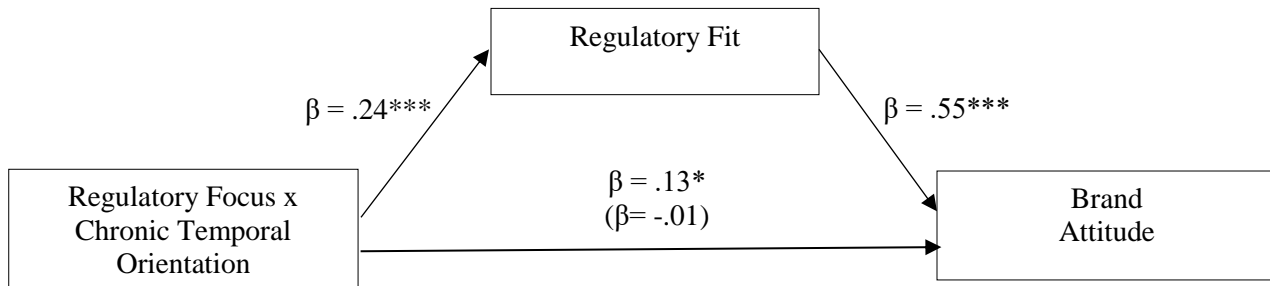
Regarding to brand attitude, the results of the bootstrapping revealed that the interaction of regulatory-focused consumer review and chronic temporal orientation predicted regulatory fit in the mediator model ( $\beta = .24, p < .001$ ). In the dependent variable model, regulatory fit predicted brand attitude ( $\beta = .55, p < .001$ ), whereas the direct effect of regulatory focus x chronic temporal orientation interaction was no longer significant ( $\beta = -.01, p = .89$ ) when including regulatory fit as a predictor of brand attitude. The indirect effect of regulatory focus x chronic temporal orientation on brand attitude through regulatory fit was significant (95%,  $\beta = .13, p < .05$ ; CI = .051 to .231). Since zero was not included in the lower and upper bounds of this confidence interval (Preacher et al., 2007; Shrout & Bolger, 2002), the interactive effect of regulatory focus and chronic temporal orientation on brand attitude was fully mediated by regulatory fit, supporting H4b (see Figure 24).

For purchase intention, the results of the bootstrapping revealed that the interaction of regulatory-focused consumer review and chronic temporal orientation predicted regulatory fit in the mediator model ( $\beta = .24, p < .001$ ). In the dependent variable model, regulatory fit predicted purchase intention ( $\beta = .57, p < .001$ ), whereas the direct effect of regulatory focus x chronic temporal orientation interaction was no longer significant ( $\beta = 0, p = .94$ ) when including regulatory fit as a predictor of purchase intention. The indirect effect of regulatory focus x chronic temporal orientation on brand attitude through regulatory fit was significant (95%,  $\beta = .13, p < .05$ ; CI = .051 to .236). Since zero was not included in the lower and upper bounds of this confidence interval (Preacher et al., 2007; Shrout & Bolger, 2002), the interactive effect of regulatory focus and chronic temporal orientation on purchase intention was fully mediated by regulatory fit, supporting H4c (see Figure 25). The table 42 depicts the hypotheses and results of Study 3.



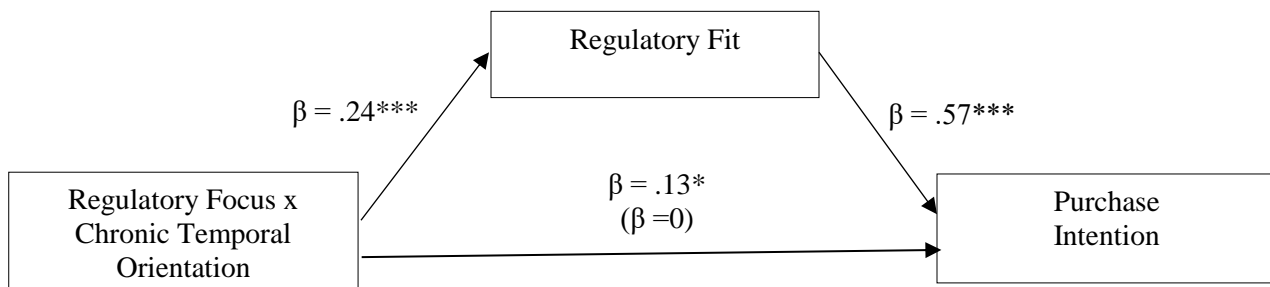
Notes: Bootstrapped 95% CI for indirect effect = [.027 to .132]; the  $\beta$  coefficient for the interaction effect between regulatory focus and chronic temporal orientation on review attitude after accounting for the mediator is shown in parentheses; \*  $p < .05$ ; \*\*  $p < .001$ ; \*\*\*  $p < .001$

Figure 23. Mediated Moderation Model on Review Attitude



Notes: Bootstrapped 95% CI for indirect effect = [.051 to .231]; the  $\beta$  coefficient for the interaction effect between regulatory focus and chronic temporal orientation on brand attitude after accounting for the mediator is shown in parentheses; \*  $p < .05$ ; \*\*  $p < .001$ ; \*\*\*  $p < .001$

Figure 24. Mediated Moderation Model on Brand Attitude



Notes: Bootstrapped 95% CI for indirect effect = [.051 to .236]; the  $\beta$  coefficient for the interaction effect between regulatory focus and chronic temporal orientation on purchase intention after accounting for the mediator is shown in parentheses; \*  $p < .05$ ; \*\*  $p < .001$ ; \*\*\*  $p < .001$ .

Figure 25. Mediated Moderation Model on Purchase Intention

Table 42. Summary of Hypotheses and Results (Study 3)

H3/H4		Hypotheses	Results
H3	H3.1.a	<i>Future-oriented consumers will show more favorable (a) review attitude when they are exposed to promotion-focused consumer reviews than prevention-focused consumer reviews.</i>	<b>Supported</b>
	H3.1.b	<i>Future-oriented consumers will show more favorable (b) brand attitude when they are exposed to promotion-focused consumer reviews than prevention-focused consumer reviews</i>	<b>Supported</b>
	H3.1.c	<i>Future-oriented consumers will show greater (c) purchase intention when they are exposed to promotion-focused consumer reviews than prevention-focused consumer reviews.</i>	<b>Supported</b>
	H3.2.a	<i>Present-oriented consumers will show more favorable (a) review attitude when they are exposed to prevention-focused consumer reviews than promotion-focused consumer reviews.</i>	Not supported
	H3.2.b	<i>Present-oriented consumers will show more favorable (b) brand attitude when they are exposed to prevention-focused consumer reviews than promotion-focused consumer reviews.</i>	<b>Supported</b>
	H3.2.c	<i>Present-oriented consumers will show greater (c) purchase intention when they are exposed to prevention-focused consumer reviews than promotion-focused consumer reviews.</i>	<b>Supported</b>
H4	H.4.a	<i>Regulatory fit will mediate the interactive effects of regulatory-focused consumer reviews and consumers' chronic temporal orientation on (a) review attitude.</i>	<b>Supported</b>
	H.4.b	<i>Regulatory fit will mediate the interactive effects of regulatory-focused consumer reviews and consumers' chronic temporal orientation on (b) brand attitude.</i>	<b>Supported</b>
	H.4.c	<i>Regulatory fit will mediate the interactive effects of regulatory-focused consumer reviews and consumers' chronic temporal orientation on (c) purchase intention.</i>	<b>Supported</b>

## Structural Equation Modeling

The two-way ANOVA results showed the interaction effects between regulatory focus and chronical temporal orientation on regulatory fit, review attitude, brand attitude, and purchase intention. Also, moderated mediation analysis confirmed that regulatory fit mediates the interaction of hypotheses effects on dependent variables. Consistent with the prior literature of regulatory fit (Keller, 2006; Labroo & Lee, 2006; Lee & Aaker, 2004; Wang & Lee, 2006), the current study has successfully demonstrated the importance of regulatory fit in enhancing consumers' attitudes and behavioral intention. However, the hypothesized relationships among latent variables (regulatory fit, review attitude, brand attitude, and purchase intention) were not fully explored in the past. Therefore, SEM analysis was performed to examine the overall relationships among the constructs (see Figure 26 for proposed model of SEM). SEM is a combination of multivariate technique that allows researchers to examine a series of dependence relationship simultaneously (Hair, Anderson, Tatham, & Black, 1998). Following Anderson and Gerbing's (1988) two-step approach, a confirmatory factor analysis (CFA) of measurement model was first performed to assess whether observed variables had the appropriate properties to represent each latent construct, and then the full structural model was estimated.

The structural model was analyzed with maximum likelihood estimation. The overall fit of the model was accessed with various fit indices: chi-square ( $\chi^2$ ), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), comparative fit index (CFI) and root-mean-squared-residual (RMSR). The chi-square test was used to assess the adequacy of a hypothesized model. In order to determine whether the proposed hypotheses are supported, each path coefficient in the predicted direction was examined at the .05 level of significance (if the t-value is greater than or equal to 1.96) (Hair et al., 1998).

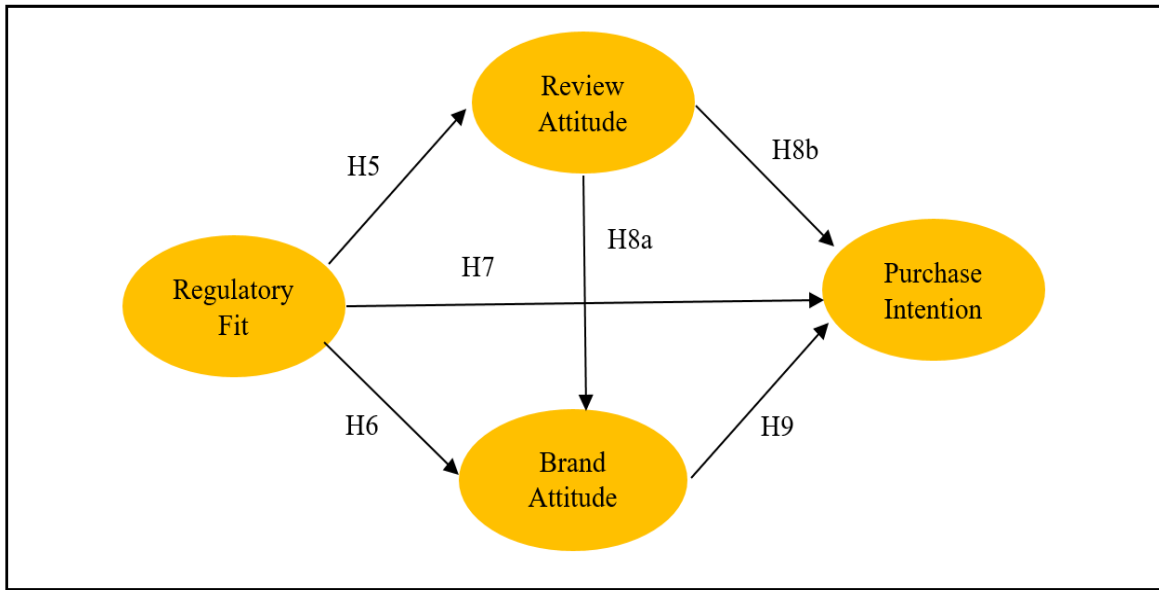


Figure 26. Proposed Model of SEM

### *Assumption Checks*

I conducted a series of underlying assumptions (i.e., normality, linearity, sampling adequacy, and no extreme multicollinearity) for SEM recommended by Hair et al. (1998). The results showed that normality assumption was confirmed because the skewness and kurtosis values for each measurement item were within the acceptable range of  $\pm 1.96$  ( $-1.84 < \text{skewness values} < 1.00$ ;  $-1.16 < \text{kurtosis values} < 1.76$ ). Furthermore, Kaiser-Meyer-Olkin's (KMO) measure of sampling adequacy was .88. Bartlett's Test of Sphericity index testing for linearity was statistically significant ( $p < .001$ ). Finally, no extreme multicollinearity occurred since the values of extracted communalities ranged from .66 to .82 across all measurement items. therefore, the basic assumptions for SEM were achieved



### ***Measurement Model***

The maximum likelihood estimation method was used for CFA in the study. The fit indices were as follows for the measurement model:  $\chi^2$  (59) = 205.28 ( $p < .001$ ), goodness-of-fit index (GFI) = .92, comparative fit index (CFI) = .97, Tucker-Lewis index (TLI) = .96, normed fit index (NFI) = .95, root mean square error of approximation (RMSEA) = .08, and standardized root mean square residual (SRMR) = .07. The value of  $\chi^2$  was statistically significant, but it tends to be sensitive to sample size, sometimes leading to rejection of the model (Hair et al., 1998). For this reason, the value of  $\chi^2$  was divided by the degree of freedom in order to reduce the sensitivity of  $\chi^2$  to sample size, and a variety of fit indices were evaluated altogether. As suggested by Bentler and Bonnet (1980), a  $\chi^2$ /degree of freedom ratio that does not exceed 5.0 indicates acceptable model fit. In this model, the  $\chi^2$ /degree of freedom ratio was 3.48 and other goodness-of-fit measures (i.e., GFI, CFI, TLI, NFI, RMSEA, and SRMR) met the recommended cutoff criteria for fit indexes (Hu & Bentler, 1999).

Thus, the researcher concluded that the model was satisfactory despite the significant  $\chi^2$  value. Upon confirming the measurement model's overall fit, composite reliability was further evaluated for each construct. The composite reliability values ranged from .91 to .94, which were acceptable given Hair et al.'s (1998) suggestion of .70 to be adequate (i.e., the composite reliability for regulatory fit = .91, review attitude = .93, brand attitude = .94, and purchase intention = .92). Convergent validity was evaluated in two different ways. First, convergent validity could be achieved when t-values associated with each factor loading exceed a critical ratio of 1.96 at the .05 significance level (Anderson & Gerbing, 1988). The researcher found that all standardized factor loadings for individual indicators, ranging from .76 to .94, were statistically significant ( $p < .001$ ).

Second, the average variance extracted (AVE) was calculated to examine whether convergent validity were achieved. It is important to note that convergent validity could be achieved if the AVE value is equal to or greater than .50 (Fornell & Larcker, 1981). The findings reported that the AVE values were ranged from .73 to .84, indicating satisfactory convergent validity. Table 43 summarizes the results of the standardized factor loadings, composite reliability, and AVE estimates.

Discriminant validity was conducted by comparing the square roots of AVE to the correlation coefficients among the constructs (Fornell & Larcker, 1981). As shown in Table 44, all of the square roots of AVE exceeded the correlations in the measurement model, showing good discriminant validity.

### ***Structural Model and Hypothesis Testing***

The full structural model was conducted using the maximum likelihood estimation method. To determine whether the hypotheses were supported, each structural path coefficient was examined with the fit indices of the proposed model. The model exhibited a good fit of the data ( $\chi^2 (38) = 133.04, p < .001$ , GFI = .95, CFI = .98, TLI = .97, NFI = .97, RMSEA = .08 and SRMR = .07). As illustrated in Figure 4.20, regulatory fit had a positive effect on review attitude ( $\beta = .54, t = 10.29, p < .001$ ; supporting H5), brand attitude ( $\beta = .43, t = 9.17, p < .001$ ; supporting H6) and purchase intention ( $\beta = .41, t = 7.43, p < .001$ ; supporting H7). Review attitude had a positive relationship with brand attitude ( $\beta = .49, t = 10.75, p < .001$ ; supporting H8a). Brand attitude was positive related to purchase intention ( $\beta = .50, t = 7.63, p < .001$ ; supporting H9). However, review attitude was not significantly related to purchase intention ( $\beta = -.04, t = -.81, p = .42$ ; rejecting H8b). Overall, all path coefficients were statistically significant except for H8b (see Figure 27 and Table 45 for the hypotheses and results of SEM analysis).

Table 43. Measurement Model Statistics

Name of Scale	Items	CR	AVE	Factor Loading
Regulatory fit	I would say the online reviews for the Salinger hotel:	0.91	0.73	
	1. make me feel right about booking it.			0.86
	2. are just right for me.			0.89
	3. make me feel motivated to continue my visit.			0.89
	4. keep me engaged in my main motivation.			0.76
Review attitude	My attitude toward online reviews for the SALINGER hotel is:	0.93	0.82	
	1. Negative/positive			0.91
	2. Unfavorable/favorable			0.91
	3. Bad/good			0.90
Brand attitude	My attitude toward the SALINGER hotel is:	0.94	0.84	
	1. Bad/good			0.92
	2. Unfavorable/favorable			0.89
	3. Dislike/like			0.94
Purchase intention	1. Very unlikely/very likely	0.92	0.78	0.91
	2. Impossible/possible			0.85
	3. Improbably/probably			0.90

Table 44. Correlation Matrix

Construct	1	2	3	4
1. Regulatory fit	<b>.85</b>			
2. Review attitude	<b>.55*</b>	<b>.91</b>		
3. Brand attitude	<b>.70*</b>	<b>.72*</b>	<b>.92</b>	
4. Purchase intention	<b>.73*</b>	<b>.57*</b>	<b>.78*</b>	<b>.89</b>

Note: Diagonal numbers in boldface refer to the square root of AVE (average variance extracted) values; Off-diagonal numbers are the correlation coefficient between latent constructs. \* $p < .05$

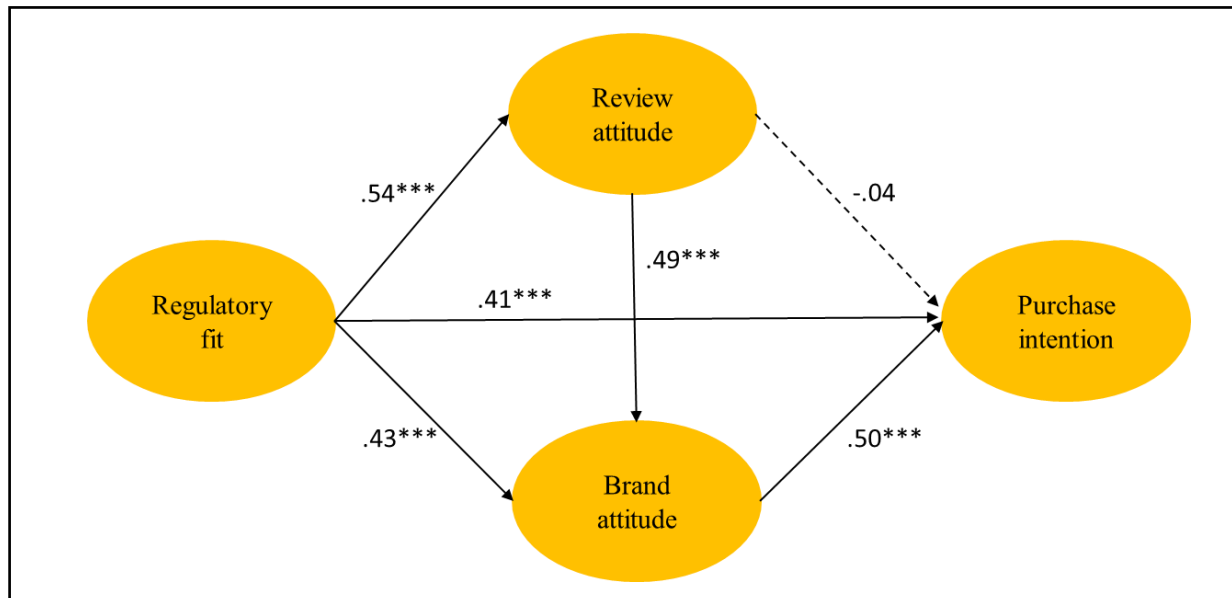


Figure 27. Results of SEM

Table 45. Summary of Hypotheses and Results of SEM Analysis

Hypotheses		Results
H5	<i>Regulatory fit will positively influence attitude toward consumer review.</i>	<b>Supported</b>
H6	<i>Regulatory fit will positively influence attitude toward the brand.</i>	<b>Supported</b>
H7	<i>Regulatory fit will positively influence purchase intention.</i>	<b>Supported</b>
H8a	<i>Review attitude will positively influence (a) brand attitude.</i>	<b>Supported</b>
H8b	<i>Review attitude will positively influence (b) purchase intention.</i>	Not supported
H9	<i>Brand attitude will positively influence purchase intention.</i>	<b>Supported</b>

## Discussion

Study 3 was designed to extend the findings of first two studies by examining whether individual differences in time orientation influence consumers' online review evaluations when they read regulatory-focused consumer reviews. Notably, the researcher found that significant two-way interaction effects between regulatory-focused consumer reviews and individuals' temporal orientation on consumers' attitudinal and behavioral responses. As predicted, future-oriented participants revealed more favorable review attitude, brand attitude and greater purchase intention toward promotion-focused consumer reviews than prevention-focused consumer reviews. In contrast, present-oriented participants showed more favorable brand attitude and greater purchase intention when they read prevention-focused consumer reviews than promotion-focused consumer reviews.

Furthermore, the results suggested that regulatory fit would be a dominant key mediator underlying the hypothesized interaction effects on attitudinal and behavioral responses. That is, combining regulatory focus and individual temporal orientation would appear to lead to enhanced regulatory fit, which in turn increased review attitude, brand attitude, and purchase intention. Accordingly, the researcher found that regulatory fit plays an important role in enhancing the consumers' attitudes and behavioral intention in online consumer review.

The structural equation model demonstrated that regulatory fit had a significantly positive impact on review attitude, brand attitude, and purchase intention. Moreover, the results revealed that review attitude had a positive influence on brand attitude, while it had no significant effect on purchase intention. However, brand attitude had a positive influence on purchase intention.

## **CHAPTER 5**

### **DISCUSSION**

The current chapter discusses the experimental findings and explores the theoretical and managerial implications. The limitations of the study, accompanied by propositions for future research, are also highlighted.

#### **Overview**

This study examined how consumers differently evaluate consumer-generated online reviews framed by promotion goals and prevention goals depending on contextual and personal factors. Drawing on regulatory focus theory (Higgins, 1997), which distinguishes between promotion and prevention goals, this study proposed that a contextual variable (i.e., temporal distance of consumption) and an individual variable (i.e., chronic temporal orientation) would moderate the effects of regulatory-focused consumer reviews on attitude formation and behavioral intention. In order to test the causal relationships, three experimental studies were conducted across two different product categories: consumer good (Study1- athletic shoes) and service good (Studies 2 and 3 - hotel). Overall, the results of the three studies generally demonstrate that temporal distance and chronic temporal orientation moderated the effects of regulatory-focused consumer reviews on attitude toward the review, attitude toward the reviewed brand, and purchase intention.

## Discussion of Results

The first two studies examined how temporal distance of consumption moderates the impact of regulatory-focused consumer reviews. Study 1, contextualizing the purchase of fictitious athletic shoes, showed that participants rated prevention-focused consumer reviews more favorably than promotion-focused consumer reviews when the purchase was temporally proximal (i.e., in two days). However, their attitudes toward regulatory-focused consumer reviews were not significantly different when the purchase was temporally distant (i.e., six months from now). That is, the findings indicated that when the consumption of an apparel product was anticipated to be temporally distant, attitudes toward promotion- and prevention-focused review were similar.

One possible explanation for these findings is that individuals are more likely to regard promotion goals as time-independent because they are associated with maximizing desired outcome, whereas they might perceive prevention goals as more time-sensitive (i.e., needs to be done here and now) (Pennington & Roses, 2003). Therefore, as consumption time became more proximal, prevention-focused reviews were more favored; however, both prevention- and promotion-focused reviews might be equally influential when consumption is further in the future. Consumers might also more typically think about apparel as a product to consume in the near future rather than in the distant future. Accordingly, they are less likely to be influenced by different types of reviews under the distant future consumption condition.

Study 2 was conducted to enhance the generalizability of the Study 1 results by using a different product type (i.e., hotels). The results indicate that participants showed more favorable attitudes toward promotion-focused consumer reviews than prevention-focused consumer

reviews when consumption was temporally distant. Moreover, their brand attitude was more favorable, and their purchase intention was higher after reading promotion-focused consumer reviews than after reading prevention-focused consumer reviews under the distant future condition. However, the differences between two types of reviews were not significant under the proximal future condition. Thus, Study 2 partially supported the interactive effects between regulatory focus and temporal distance on consumer attitudes and purchase intention. Furthermore, review relevance fully mediated the effects of the interaction between regulatory focus and temporal distance on review attitude, brand attitude, and purchase intention.

Although the findings of Study 2 were not consistent with previous regulatory fit theory literature, they do resemble findings from some studies. For example, Pennington and Roses (2003) suggested that promotion-focused goals were predominant for temporally distant future behaviors, whereas prevention-focused goals remained constant across temporal distances. In particular, they found that individuals showed stronger promotion-focused goals when the final exam period was further in the future, whereas they had more balanced goal strategies when the exam was sooner. Forster, Higgins, and Idson (1998) also found that regulatory focus remained constant over time. These findings are certainly compatible but do not overlap the results of the current study. We found that the effects of regulatory-focused consumer reviews were roughly equivalent for proximal-future consumption, while individuals gave more weight to promotion-focused reviews for distant-future consumption.

In sum, the results of first two studies show different patterns. In terms of purchasing athletic shoes, prevention-focused consumer reviews were more effective than promotion-focused consumer reviews under the proximal-future consumption condition. However, in the context of booking a hotel room for a trip, promotion-focused consumer reviews were more



effective than prevention-focused consumer reviews under the distant-future consumption condition. One possible explanation for these findings is that consumers' information processing and online review evaluation can vary according to product categories or characteristics. On the one hand, given that the attributes of apparel products are tangible, the prevention-focused goal might be more influential than the promotion-focused goal when consumption is anticipated in the proximal future. When consumers purchase athletic shoes, they might consider using the product in the proximal future rather than distant future because the benefits of new shoes are more time-sensitive. On the other hand, given that the attributes of tourism products are intangible and diverse, the promotion-focused goal might be more influential than the prevention-focused goal when consumption will happen in the distant future. Consumers often make vacation plans weeks or months in advance, so they are more likely to think about maximizing benefits in the distant future.

Study 3 was done to extend the first two studies using actual hotel websites. Instead of using a situational factor, such as temporal distance of consumption, Study 3 examined how individual differences (i.e., temporal orientation: future-oriented vs. present-oriented) moderate the effects of regulatory-focused consumer reviews, thereby leading to favorable attitudes and greater purchase intention. The results indicated that future-oriented consumers showed more favorable review attitude, brand attitude, and purchase intention when they read promotion-focused consumer reviews than when they read prevention-focused consumer reviews. On the other hand, the present-oriented consumers indicated more favorable brand attitude and purchase intention when they read prevention-focused consumer reviews than when they read promotion-focused consumer reviews. However, present-oriented consumers' attitudes toward the regulatory-focused consumer reviews were not statistically significant.

Notably, the results of Study 3 demonstrate that regulatory fit fully mediated the effects of interaction between regulatory focus and individual temporal orientation on review attitude, brand attitude, and purchase intention. Additionally, findings from the structural equation modeling demonstrated the importance of regulatory fit as an antecedent that enhances review attitude, brand attitude, and purchase intention. While review attitude did not directly influence purchase intention, it indirectly affected purchase intention by enhancing brand attitude. These findings provide an empirical support for the importance of regulatory fit in online consumer review evaluations in terms of increasing review attitude, brand attitude, and purchase intention. Taken together, the findings of Study 3 confirmed the findings of previous studies that future-oriented consumers regarded promotion-focused reviews as more effective than prevention-focused reviews, thereby enhancing their attitudes and purchase intention (Kees, 2011; Kees et al., 2010; Tangari, 2012). The reverse pattern was observed for present-oriented consumers.

### **Contribution to the Literature**

This dissertation makes several theoretical contributions to the study of online consumer reviews. First, the current study extends the literature by incorporating self-regulatory goals. While previous studies have primarily focused on the volume and valance of online reviews, the current study explored the contents of consumer reviews framed by regulatory goals. Specifically, the findings suggest that consumers are influenced not only by ratings or volumes of online reviews but also by regulatory goals. Although recent advertising and consumer research has found that both types of regulatory goals in messages influence on information processing (e.g., Keller, 2006; Labroo & Lee, 2006; Lee & Aaker, 2004; Wang & Lee, 2006),

scant research has considered the role of regulatory goals in online review processing and evaluation. The results of this study demonstrate that consumers do not necessarily give equal weight to promotion- and prevention-focused consumer reviews. Rather, consumer responses to regulatory-focused consumer reviews vary depending on various contextual and personal factors. Accordingly, the findings of this study shed light on the way consumers process information with regard to the regulatory goals used to frame messages in electronic commerce environments.

Second, this dissertation enriches the regulatory fit literature by integrating regulatory fit into regulatory focus theory and construal level theory. Consistent with studies that have examined the relationship between regulatory focus and construal level (e.g., Lee & Higgins, 2009; Liberman et al., 1999; Pennington & Roses, 2003), the current study provides empirical evidence for the impact of regulatory fit on attitude formation and behavior intention. Specifically, this study broadens our understanding of consumers' online review evaluations by examining how temporal distance and individual temporal orientation moderate the effects of regulatory-focused consumer reviews. Although consumers often order products for distant-future events or make plans for a vacation in advance, the connection between regulatory focus and consumption time in online review evaluation had not been empirically observed. The results of three experiments show that regulatory fit between regulatory focus and temporal distance (and temporal orientation) made online review evaluation more favorable.

Third, the current study sheds light on the specific nature of mechanism underlying review relevance and regulatory fit by examining how consumers perceive information as more easily accessible and relevant in an online shopping environment. Although numerous studies have examined the importance of perceived relevance and regulatory fit in consumer behavior

(e.g., Lee, 2001; Lee & Aaker, 2006) across different settings, no empirical research has investigated the mediating role of review relevance and regulatory fit in the context of online consumer reviews. Namely, the current study explored why consumers perceive online reviews as more influential and regard messages as more personally relevant (Study 2). The results demonstrated that experiencing regulatory fit made people feel engaged while processing the information (Study 3). These findings suggested that consumers are more motivated to search consumer reviews that match their consumption situations and regulatory goals, thereby leading to favorable attitudes and higher behavioral intention. In other words, consumers are more influenced by online reviews that fit their current information needs. Accordingly, the current study contributes to better understanding of the mechanism that underlies the regulatory fit effect on enhancing the effectiveness of online consumer reviews.

Finally, the current study sheds light on the online review literature. While previous studies examining the interaction between regulatory focus and construal level employed relatively low-involvement products (e.g., orange juice and toothpaste), the current study purposefully used relatively high-involvement products (i.e., hotels and athletic shoes) for which consumers are more likely to search consumer-generated online reviews and created more realistic experimental settings. By demonstrating the regulatory fit effect between regulatory focus and temporal distance across two product types (i.e., service good and consumer good), this study offers a new way to improve the effectiveness of online reviewing systems for retailers. In this context, this study makes several important contributions to literature of retailing and tourism.

## **Implication for Practitioners**

The Internet has greatly enhanced consumers' ability to gather and disseminate product- and brand-related information. Today, consumers can easily access consumer-generated online reviews around the globe and affect numerous other consumers by sharing their own experiences (Zhang et al., 2010). Consumers generally face overwhelming numbers of reviews, and this information overload creates enormous cognitive stress. Thus, marketing practitioners should increase the effectiveness of their online review systems by providing the information that consumers need. Some travel review sites, such as Traveladvisor and IgoUgo.com, currently sort reviews based only on posting date or valence (Racherla, 2008). The current study offers new guidelines for marketers in e-tourism and the apparel industry to segment their target audiences and revamp their product review platforms to suit consumer orientation.

Typically, marketers generate recommendation systems and manage review platforms based on consumers' previous purchase experiences or product similarity. That is, most product review platforms ask consumers to rate recently purchased products or services and describe their experiences, suggestions, and opinions. However, hosting consumer evaluations of products or services without considering the needs and regulatory goals of future consumers might not be sufficient. While consumers use online reviews to gain information about products or services, they also read online reviews with specific goals in mind. In this vein, Kwon and Sung (2012) found that consumers tend to behave according to their consumption goals (i.e., promotion vs. prevention) and that consumers become more involved with online reviews with consistent regulatory goals rather than those with inconsistent regulatory goals. Consistent with their conclusions, the current study suggests an alternative way to manage online consumer reviews

based on consumers' regulatory goals. For example, marketers might include options through which consumers can articulate their regulatory goals when sorting online reviews. That is, when consumers search hotel reviews, marketers could provide a list of hotel features that consumers might prefer over others (e.g., security, cleanliness, privacy, comfort, customer service). By understanding consumer goals in using online reviews, marketers could better provide information that fulfills consumer demand.

Most importantly, the current study found that contextual factor (temporal distance of consumption) influenced attitude toward the review, attitude toward the brand, and behavioral intention. Segmenting the content of online reviews according to the information needs of different temporal distances might enhance consumers' responses. The findings indicate that consumers showed different attitudinal and behavioral responses toward regulatory-focused reviews depending on their anticipated consumption time across two product categories. For athletic shoes, prevention-focused consumer reviews were more influential on attitude formation and behavior intention than promotion-focused consumer reviews for near-future consumption. However, when booking a hotel room, participants were more affected by distant-future consumption, so promotion-focused consumer reviews were more influential on attitude formation and behavior intention than prevention-focused consumer reviews.

Based on these findings, marketers should strategically recommend consumer reviews and provide promotional deals that match consumers' consumption situation. In this way, marketers can create more attractive deals and increase financial benefits. For instance, marketers should design effective recommendation systems in connection with promotional strategies, such as advance selling versus on-site selling (Zhao & Xie, 2011). To promote an advance-sale deal for a tourism product (e.g., hotel room or vacation package), marketers could

place promotion-focused consumer reviews that emphasize achieving maximum benefits or desirable outcomes at the top of consumer review pages. To promote an on-site-sale deal for an apparel product (e.g., athletic shoes), they could place prevention-focused consumer reviews at the top of consumer review pages. Such strategies might considerably increase the usability of online reviews as well as lead to more favorable attitude toward the brand and greater purchase intention.

Furthermore, the current study demonstrated that an individual variable, the recipient's temporal orientation, moderated the effects of regulatory-focused consumer reviews. To be more specific, promotion-focused consumer reviews worked better for future-oriented individuals than present-oriented individuals. The converse pattern was true for present-oriented individuals with prevention-focused consumer reviews. Although marketers of tourism strategically identify target consumers, few have considered the temporal orientation of current and potential consumers. The findings of the current study help explain why some reviews are more influential than others for different types of consumer groups and, thus, suggest a more effective way to manage online review systems to their target customers. Taking into consideration the evidence discussed above, marketers might be able to segment review content according to the information needs of different consumer types. Not only does increasingly relevant and easy access to reviews help consumers make more informed decisions, but it also increase opportunities for companies to initiate and manage their review system efficiently.

## **Limitations and Directions for Future Research**

Although this dissertation yielded coherent results given the literature and hypotheses, it has several limitations that need to be addressed. The first limit concerns the manipulation of temporal distance within the experimental stimuli. In the experiments, temporal distance was manipulated by providing a shopping scenario and an ad banner that informed participants when their consumption would occur. That is, the lab setting specified two time periods: “this week” for proximal-future consumption and “one year later” for distant-future consumption. Although this drastic difference in conditions was intentional, investigating which time periods might constitute proximal and distant consumption situations would be interesting. Despite the successful manipulation check for temporal distance in the three experiments, identical reproduction of a real purchase situation in which consumers plan their consumption was not possible. Accordingly, future research can implement a field experimental design by manipulating a temporal distance condition that includes their real-world consumption timeline (e.g., using a hotel booking scheduler).

Furthermore, regarding the manipulation checks for regulatory goals in consumer reviews, the mean scores from both conditions (promotion- vs. prevention) were relatively close to or above the scale’s neutral point (4). In Study 1, the results confirmed that participants in the promotion-focused review condition perceived that the reviews conveyed the promotion of positive outcomes ( $M = 5.56$ ), whereas participants in the prevention-focused review condition considered that the reviews conveyed the prevention of negative outcomes ( $M = 4.93$ ). The manipulation check results of regulatory focus in Study 2 and Study 3 showed similar patterns. Although the mean score differences are indeed consistent with the manipulation intention, there



is not sufficient evidence of successful manipulation for the current study since the mean score from each condition fails to show clearly that one group is promotion-focused and the other group is prevention-focused. One possible explanation for the results of manipulation check pertains to the content of regulatory goals in consumer reviews. The way of manipulating regulatory goals used in the current research was concerned about benefit seeking (promotion-focused) and risk avoidance (prevention-focus) when using product or service. It is argued that the adoption of a promotion versus prevention goal may not simply be a proxy for positively versus negatively valenced online reviews. Rather, this manipulation would work within positive review content, which might have caused its mean scores from both conditions (promotion- vs. prevention) were relatively above the scale's median point (4) (Kareklas, Carlson, & Muehling, 2012; Wang Lee, 2006).

Another limitation of the study is the exclusive use of one dimension of psychological distance (i.e., temporal distance). While the current study focused on the moderating role of temporal distance in online review evaluation, future studies could explore whether the results obtained can be generalized to other forms of psychological distance (e.g., social distance). Consumers are more likely to trust information from others who are socially close to them, such as family and friends, than others who are socially distant. Drawing on research on psychological distance, Zhao and Xie (2011) demonstrated that interaction effect of social distance and temporal distance on consumer attitude. In particular, they found that recommendations from socially distant others were more influential in distant-future consumption than near-future consumption. Conversely, recommendations from socially close others were more influential in near-future consumption (Zhao & Xie, 2011). Given the importance of social influence in information processing, exploring the interplay of social distance and regulatory goals on

consumer responses to online reviews could yield interesting findings. Although various studies have examined social influence on online review effectiveness (e.g., Trope et al., 2007; Zhao & Xie, 2011), regulatory fit between social distance and regulatory goals in online reviews could be an interesting path of inquiry. In addition, future research could explore how two dimensions of psychological distance (e.g., temporal and social), jointly affect consumer evaluations of regulatory-focused online reviews.

Future research could also investigate whether different types of review providers (e.g., peers, experts, and governments) influence consumer responses to online reviews in the tourism and apparel industries. In most cases, consumers do not have information about the reviewers themselves. However, social network sites such as Facebook and Twitter encourage their users to share opinions and experiences about products and services. Also, many tourism firms are taking an active role in social media information exchange by having managers post comments. Accordingly, examining how the interaction effects of regulatory focus and temporal distance vary depending on different review sources would be interesting.

Finally, the current study focused only on consumer review evaluations using service good (hotel) and consumer good (athletic shoes). Future research could also explore how the interaction effects might vary in different purchase situations (e.g., high vs. low involvement) using other product categories (e.g., experiential vs. utilitarian). Other important characteristics of the review, such as review extremity (e.g., the use of superlatives) and review argument (e.g., one sided vs. two sided) could also be explored.

## REFERENCES

- Aaker, L. J., & Lee, Y. A. (2001). I seek pleasure, we avoid pains: The role of self-regulatory goals in information processing of persuasion. *Journal of Consumer Research*, 28(1), 33-49.
- Aaker, L. J., & Lee, Y. A. (2006). Understanding regulatory fit. *Journal of Marketing Research*, 43(1), 15-19.
- Albinsson, A. P., Burman, B., & Das, N. (2010). Price surcharge and the effects of construal level. *Journal of Applied Business and Economics*, 11(4), 56-69.
- Anderson, C. J., & Gerbing, W. D. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 10(3), 441-423.
- Anderson, E. W. (1998). Customer satisfaction and word of mouth. *Journal of Service Research*, 1(1), 5-17.
- Anderson, E. W., & Salisbruy, L. (2003). The formation of market-level expectations and its covariates. *Journal of Consumer Research*, 30(1), 115-124.
- Arndt, J. (1967). Role of product-related conversations in the diffusion of a new product. *Journal of Consumer Research*, 4(3), 291-295.
- Avnet, T., & Higgins, E. T. (2006). How regulatory fit affects value in consumer choices and opinions. *Journal of Marketing Research*, 43(1), 1-10.
- Bagozzi, R. P. (1981). Attitudes, intentions, and behavior: A test of some key hypotheses. *Journal of Personality and Social Psychology*, 41(4), 607-627.
- Bagozzi, R. P., & Dholakia, U. M. (2002). Intentional social action in virtual communities. *Journal of Interactive Marketing*, 16(2), 2-21.

- Bakos, Y., & Dellarocas, C. (2011). Cooperation without enforcement? A comparative analysis of litigation and online reputation as quality assurance mechanisms. *Management Science*, 57, 1944-1962.
- Bentler, P. M., & Bonnet, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588-606.
- Bentler, P. M., & Speckart, G. (1979). Models of attitude-behavior relations. *Psychological Review*, 86(5), 452-464.
- Bone, P. F. (1995). Word-of-mouth effects on short-term and long-term product judgments. *Journal of Business Research*, 32(3), 213-223.
- Bowman, Douglas., & Narayandan, D. (2001). Managing customer-initiate contacts with manufacturers: The impact of share of category requirements on word of-mouth behavior. *Journal of Marketing Research*, 38(3), 281-297.
- Burton, J., & Khammash, M. (2010). Why do people read reviews posted on consumer-opinion portals?. *Journal of Marketing Management*, 26(3), 230-255.
- Casalo, V. L., Flavian, C., Guinaliu, M., & Ekinci, Y. (2015). Avoiding the dark side of positive online reviews: Enhancing reviews' usefulness for high risk-averse travelers. *Journal of Business Research*, 68(9). 1829-1835.
- Castano, R., Mita, S., Manish, K., & Harish, S. (2006). Managing consumer uncertainty in the adoption of new products: Temporal distance and mental simulation. *Journal of Marketing Research*, 45, 320-336.
- Chatterjee, P. (2001). Online reviews: Do consumers use them?. *Advances in Consumer Research*, 28(1), 129-133.

- Cheema, A., & Patrick, M. V. (2008). Anytime versus only: Mind-sets moderate the effect of expansive versus restrictive frames on promotion evaluation. *Journal of Marketing Research*, 45(4), 462-472.
- Chen, P. Y., Wu, S. Y., & Yoon, J. (2004). The impact of online recommendations and consumer feedback on sales. *In proceedings of the International Conference on Information Systems*. Washington, DC, 711-724.
- Cheung, W. G., & Lau, S. R. (2008). Testing mediation and suppression effects of latent variables: Bootstrapping with structural equation models. *Organizational Research Methods*, 11, 296-325.
- Chevalier, J., & Mayzlin, D. (2006). The effect of word of mouth online: Online book reviews. *Journal of Marketing Research*, 43(3), 345-354.
- Cisco Internet business solution group. (2013). Catch and keep digital shoppers. Retrieved from [http://www.cisco.com/web/about/ac79/docs/retail/Catch-and-Keep-the-Digital-Shopper\\_PoV.pdf](http://www.cisco.com/web/about/ac79/docs/retail/Catch-and-Keep-the-Digital-Shopper_PoV.pdf).
- Cotton Incorporated Survey. (2013). Retail everywhere: Omni-channel apparel shopping. Retrieved from <http://www.cottoninc.com/corporate/Market-Data/SupplyChainInsights/Retail-Everywhere-Omni Channel-Apparel-Shopping/Retail Everywhere-Omni-Channel-Apparel- Shopping.pdf>.
- Coyle, R. J., & Thorson, E. (2001). The effects of progressive levels of interactivity and vividness in web marketing sites, *Journal of Advertising*, 30(3), 65-77.
- Dellarocas, C. (2003). The digitization of word of mouth: Promise and challenges of online feedback mechanisms. *Management Science*, 49(1), 1407-1424.

- Dellarocas, C., Zhang, X. M., & Awad, N. F. (2007). Exploring the value of online product reviews in forecasting sales: The case of motion pictures. *Journal of Interactive Marketing, 21*(4), 2–20.
- Dickinger, A. (2011). The trustworthiness of online channels for experience- and goal-directed search tasks. *Journal of Travel Research, 50*, 378-391.
- Doh, S., & Hwang, J. (2009). How consumers evaluate eWOM messages. *Cyberpsychology and Behavior, 12*(2), 193-197.
- Duan, W., Gu., B., & Whinston, B. A. (2008). The dynamics of online word-of-mouth and product sales: An empirical investigation of the movie industry. *Journal of Retailing, 84*(2), 233-242.
- eMarketer. (2013). Users seek out the truth in online reviews: Consumer look for indicators of review authenticity.
- Endo, S., Yang, J., & Park, J. (2012). The investigation on dimensions of e-satisfaction for online shoes retailing. *Journal of Retailing and Consumer Services, 19*, 398-405.
- Evans, L., & Petty, R. (2003). Self-guide framing and persuasion: Responsibly increasing message processing to ideal levels. *Personality and Social Psychology Bulletin, 29*, 313-324.
- Eyal, T., Liberman, N., & Trope, Y. (2009). Psychological distance and consumer behavior: A construal level theory perspective. *Social Psychology of Consumer Behavior, Philadelphia: Psychology Press. 61-83.*
- Filieri, R., & Mcleay, F. (2013). E-WOM and accommodation: An analysis of the factors that influence travelers' adoption of information from online reviews. *Journal of Travel Research, 53*(1), 44-57.

- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*: Addison-Wesley (Reading, Mass.).
- Floyd, K., Freling, R., Alhoquil, S., Cho, H. Y., & Freling, T. (2014). How online product reviews affect retail sales: A meta-analysis. *Journal of Retailing*, 90(2), 217-232.
- Fornell, C., & Larcker, F. D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Forster, E. J., Higgins, T., & Idson, L. C. (1998). Approach and avoidance strength during goal attainment: Regulatory focus and the ‘goal looms larger’ effect. *Journal of Personality and Social Psychology*, 75, 1115–1131.
- Freitas, L. A., & Higgins, E. T. (2002). Enjoying goal-directed action: The role of regulatory fit. *Psychological Science*, 13, 1–6.
- Godes, D., & Mayzlin, D. (2004). Using online conversations to study word-of-mouth communication. *Marketing Science*, 4, 321-326.
- Granitz, N. A., & Ward, J. C. (1996). Virtual community: A sociocognitive analysis. *Advanced in Consumer Research*, 23(1), 161-166.
- Gretzel, U., & Yoo, K. H. (2008). Use and impact of online travel reviews. In P. O’Connor, W. Hopken & U. Gretzel (Eds). *Information and Communication Technology in Tourism*, (pp. 35-46). Austria: Springer Vienna.
- Hair, F. J., Anderson, E. R., Tatham, L. R., & Black, C. W. (1998). *Multivariate data analysis* (5<sup>th</sup> Ed.). Upper Saddle River, NJ: Prentice Hall.
- Haley, R. I., & Baldinger, A. L. (2000). The ARF copy research validity project. *Journal of Advertising Research*, 40(6), 114-135.



- Higgins, E. T. (2000). Making a good decision: Value from fit. *American Psychologist*, 55(11), 1217-1230.
- Higgins, E. T. (2006). Value from hedonic experience and engagement. *Psychological Review*, 113, 439-460.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52(12), 1280-1300.
- Higgins, E. T., Idson, L. C., Freitas, A. L., Spiegel, S., & Molden, D. C. (2003). Transfer of value from fit. *Journal of Personality and Social Psychology*, 84(6), 1140-1153.
- Henning-Thuran, T., Gwinner, K. G., Walsh, G., & Gremler, D. D. (2004). Electronic word of mouth via consumer opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing*, 18(1), 38-52.
- Hsu, H-J. (2013). Gender effects on Internet shopping, based on clothing values in Taiwan. *Advances in Information Sciences and Service Sciences*, 5(8), 899-907.
- Hu, L-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.
- Hu, N., Liu, L., & Zhang, J. (2008). Do online reviews affect product sales? The role of reviewer characteristics and temporal effects. *Information Technology and Management*, 9(3), 201-214.
- Huang, P., Lurie, H. N., & Mitra, S. (2009). Searching for experience on the web: An empirical examination of consumer behavior for search and experience goods. *Journal of Marketing*, 73(2), 55-69.

- Idson, L. C., Liberman, N., & Higgins, E. T. (2004). Imagining how you'd feel: The role of motivational experiences from regulatory fit. *Personality and Social Psychology Bulletin*, 30(7), 926-937.
- Jiang, Z., Chan, J., Tan, C. B., & Chau, S. W. (2010). Effects of interactivity on website involvement and purchase intention. *Journal of Association for Information Systems*, 11(1), 34-59.
- Jin, L., Hu, B., & He, Y. (2014). The recent versus out-dated: An experimental examination of the time-variant effects of online consumer reviews. *Journal of Retailing*, 90(4), 552-566.
- Kahneman, D., Tversky, A. (1979). Prospect theory: An analysis of decisions under risk. *Econometrica*, 47(2), 263-291.
- Kardes, R. F., & Cronley, L. M., & Kim, J. (2006). Construal-level effects on preference stability, preference-behavior correspondence, and the suppression of competing brands. *Journal of Consumer Psychology*, 16(2), 135-144.
- Kareklas, L., Carlson, R. J., & Muehling, D. D. (2012). The role for regulatory focus and self-view in “Green” advertising message framing. *Journal of Advertising*, 41(4), 25-39.
- Kees, J. (2011). Advertising framing effects and consideration of future consequences. *The Journal of Consumer Affairs*, 45(1), 7-32.
- Kees, J., Burton, S., & Tangari, H. A. (2010). The impact of regulatory focus, temporal orientation, and fit on consumer responses to health-related advertising. *Journal of Advertising*, 39(1), 19-34.
- Keller, P. (2006). Regulatory focus and efficacy of health messages. *Journal of Consumer Research*, 33(6), 109-114.

- Khajehzadeh, S., Oppewal, H., & Tojib, D. (2014). Consumer responses to mobile coupons: The role of shopping motivation and regulatory fit. *Journal of Business Research*, 67, 2447-2455.
- Khare, A., Labrecque, I. L., & Asare, K. A. (2011). The assimilative and contrastive effects of word-of-mouth volume: An experimental examination of online consumer ratings. *Journal of Retailing*, 87(1), 111-126.
- Kim, H., & Damhorst, M. L. (2010). The relationship of body-related self-discrepancy to body dissatisfaction, apparel involvement, concerns with fit and size of garments, and purchase intentions in online apparel shopping. *Clothing and Textiles Research Journal*, 28(4), 239-254.
- Kim, H., & John, R. D. (2008). Consumer response to brand extensions: Construal level as a moderator of the importance of perceived fit. *Journal of Consumer Psychology*, 18(2), 116-126.
- Kim, H., Rao, A., & Lee, A. (2008). It's Time to vote: The effect of matching message orientation and temporal frame on political persuasion. *Journal of Consumer Research*, 35(6), 877-889.
- Kim, Y-J. (2006). The role of regulatory focus in message framing in antismoking advertisements for adolescents. *Journal of Advertising*, 35(1), 143-151.
- Kim, Y., & Han, S. (2015). The integration effect of product types, mobile advertising appeal types, and temporal distance. *Indian Journal of Science and Technology*, 8(7), 576-580.
- Kline, R.B. (2005), *Principles and Practice of Structural Equation Modeling* (2nd Edition ed). New York: The Guilford Press.

- Krantz, H.J., & Dalal, R. (2000). Validity of Web-based psychological research. *Psychological experiments on the Internet*. San Diego, CA, US: Academic Press, 317, 35-60.
- Kwon, O., & Sung, Y. (2012). Shifting selves and product reviews: How the effects of product reviews vary depending on the self-views and self-regulatory goals of consumers. *International Journal of Electronic Commerce*, 17(1), 59-81.
- Labroo, A. A., & Lee, Y. A. (2006). Between two brands: A goal fluency account of brand evaluation. *Journal of Marketing Research*, 43(3), 374-385.
- Lee, Y. A., & Aaker, L. J. (2004). Bring the frame into focus: The influence of regulatory fit on processing fluency and persuasion. *Journal of Personality and Social Psychology*, 86(2), 205-218.
- Lee, Y. A., & Higgins, E. T. (2009). *The persuasive power of regulatory fit*. In M. Wänke(Ed.), Social psychology of consumer behavior. New York: Psychology Press. 319-333.
- Lee, Y. A., Keller, A. P., & Sternthal, B. (2010). Value from regulatory construal fit: The persuasive impact of fit between consumer goals and message concreteness. *Journal of Consumer Research*, 36(2), 735-747.
- Lee, K-T., & Koo, D. M. (2012). Effects of attribute and valence of e-WOM on message adoption: Moderating roles of subjective knowledge and regulatory focus. *Computers in Human Behavior*, 28(5), 1974-1984.
- Lee, J., Park, D-H., & Han, I. (2008). The effect of negative online consumer reviews on product attitude: An information processing view. *Electronic Commerce Research and Application*, 7(3), 341-352.

- Lee, E.-J., & Shin, S. Y. (2014). When do consumers buy online product reviews? Effects of review quality, product type, and reviewer's photo. *Computers in Human Behavior*, 31, 356-366.
- Lee, M., & Yoon, S. (2009). Electronic word of mouth: How eWOM platforms influence consumer product judgment. *International Journal of Advertising*, 28(3), 473-499.
- Lewis, R. C., & Chambers, R. E. (2000). *Marketing leadership in hospitality, foundations and practices* (3<sup>rd</sup> ed), New York, NY: WILEY.
- Li, M., Huang, L., Tan, C-H., & Wei, K-W. (2013). Helpfulness of online product reviews as seen by consumers: Source and content feature. *International Journal of Electronic Commerce*, 17(4), 101-136.
- Liberman, N., Idson, C. L., Camacho, J. C., & Higgins, E. T. (1999). Promotion and prevention choices between stability and change. *Journal of Personality and Social Psychology*, 77(6), 1135-1145.
- Liberman, N., & Trope, Y. (1998). The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory. *Journal of Personality and Social Psychology*, 75(1), 5-18.
- Liberman, N., Trope, Y., & Wakslak, C. (2007). Construal level theory and consumer behavior. *Journal of Consumer Psychology*, 17(2), 113-117.
- Litvin, W. S., Goldsmith, E. R., & Pan, B. (2008). Electronic word-of-mouth in hospitality and tourism management. *Tourism Management*, 29(3), 458-468.
- Liu, Y. (2006). Word of mouth for motives: Its dynamics and impact on box office revenue. *Journal of Marketing*, 70(3), 74-89.

- Lockwood, P., Jordan, C. H., & Kunda, Z. (2002). Motivation by positive or negative role models: Regulatory focus determines who will best inspire us. *Journal of Personality and Social Psychology*, 83(4), 854-864.
- Mitchell, A. A. (1986). The effect of verbal and visual components of advertisements on brand attitudes and attitude toward the advertisement. *Journal of Consumer Research*, 13(1), 12-24.
- Mogilner, C., Aaker, J. L., & Pennington, G. L. (2008). Time will tell: The distant appeal of promotion and imminent appeal of prevention. *Journal of Consumer Research*, 34(5), 670-681.
- Mudambi, M. S., & Schuff, D. (2010). What makes a helpful online review? A study of customer reviews on Amazon.com. *MIS Quarterly*, 34(1), 185-200.
- Nelson, P. (1974). Advertising as information. *The Journal of Political Economy*, 82(4), 729-754.
- Nenkov, Y. G. (2012). It's all in the mindset: Effects of varying psychological distance in persuasive messages. *Marketing Letters*, 23(3), 615-28.
- Pan, Y., & Zhang, Q. J. (2011). Born unequal: A study of the helpfulness of user-generated product reviews. *Journal of Retailing*, 87(4), 598-612.
- Park, D-H., & Kim, S. (2008). The effects of consumer knowledge on message processing of electronic word-of-mouth via online consumer reviews. *Electronic Commerce Research and Application*, 7(1), 399-410.
- Park, C., & Lee, T. M. (2009). Information direction, website reputation and eWOM effect: A moderating role of product type. *Journal of Business Research*, 62(1), 61-67.

- Park, D-H., Lee, J., & Han, I. (2007). The effect of online consumer reviews on consumer purchasing intention: The moderating role of involvement. *International Journal of Electronic Commerce*, 11(4), 125-48.
- Park, D-H, & Park, S-B. (2008). The multiple source effect of online consumer reviews on brand evaluations: Test of the risk diversification hypothesis, *Advanced in Consumer Research*, 35, 744-745.
- Pennington, L. G., & Roese, J, N. (2003). Regulatory focus and temporal distance. *Journal of Experimental Social Psychology*, 39(6), 563-576.
- Poels, K., & Dewitte, S. (2008). Hope and self-regulatory goals applied to an advertising context: Promoting prevention stimulates goal-directed behavior. *Journal of Business Research*, 61(10), 1030-1040.
- Preacher, J. K., & Hayes, F. A. (2008). Contemporary approaches to assessing median in communication research. In A. F. Hayes, M. D. Slater, & L. B. Synder (Eds.), *The SAGE sourcebook of advanced data analysis methods for communication research*. Thousand Oaks, CA: Sage Publications.
- Racherla, P. (2008). *Factors influencing consumers' trust perceptions of online product reviews: A study of the tourism and hospitality online product review systems* (Doctoral dissertation). Retrieved from ProQuest. (Accession No. 33200030)
- Sen, S., & Lerman, D. (2007). Why are you telling me this? An examination into negative consumer reviews on the web. *Journal of Interactive Marketing*, 21(4), 76-94.
- Senecal, S., & Nantel, J. (2004). The influence of online product recommendations on consumers' online choices. *Journal of Retailing*, 80(2), 159-169.

- Shah, J., Higgins, E. T., & Friedman, R. S. (1998). Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology*, 74(2), 285-293.
- Shipp, J. A., Edwards, R. J., & Lambert, L. S. (2009). Conceptualization and measurement of temporal focus: The subjective experience of past, present, and future. *Organizational Behavior and Human Decision Processes*, 110, 1-22.
- Shrout, E. P., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7(4), 422–445.
- Soman, D. (2004). The effect of time delay on multi-attribute choice. *Journal of Economic Psychology*, 25, 153-175.
- Srinivasan, S. S., Anderson, R., & Ponnnavolu, K. (2002). Customer loyalty in e-commerce: An exploration of its antecedents and consequences. *Journal of Retailing*, 78(1), 41-50.
- Strathman, A., Gleicher, F., Boninger, S. D., & Edwards, C. S. (1994). The consideration of future consequences: Weighting immediate and distant outcomes of behavior. *Journal of Personality and Social Psychology*, 66(4), 742-752.
- Tangari, H. A., Folse, A. J., Burton, S., & Kees, J. (2010). The moderating influence of consumers' temporal orientation on the framing of societal needs and corporate responses in cause-related marketing campaigns. *Journal of Advertising*, 39(2), 35-50.
- Tangari, H. A., & Smith, J. R. (2012). How the temporal framing of energy savings influences consumer product evaluations and choice. *Psychology & Marketing*, 29(4), 198-208.
- Thomas, M., Chandran, S., & Trope, Y. (2007). The effect of information type and temporal distance on purchase intentions. Working Paper, Samuel Curtis Johnson Graduate School of Management, Cornell University.



- Travelweekly. (2014). Priceline, Tripadvisor benefit from rise in U.S. spending in Q4. Retrieved from <http://www.travelweekly.com/Travel-News/Travel-Technology/Priceline-TripAdvisorbenefit-from-rise-in-US-spending-in-Q4/>
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, 110(3), 403-421.
- Trope, Y., Liberman, N., & Wakslak, C. (2007). Construal level theory and consumer behavior. *Journal of Consumer Psychology*, 17(2), 113-117.
- Utz, S., Kerkhof, P., & Bos, J. V. (2012). Consumers rule: How consumer reviews influence perceived trustworthiness of online stores. *Electronic Commerce Research and Applications*, 11(1), 49-58.
- Vermeulen, I. E., & Seegers, D. (2008). Tried and tested: The impact of online hotel reviews on consumer consideration. *Tourism Management*, 30(1), 123-127.
- Vlachos, G. (2012). Online travel statistics. Info Graphics Mania, Retrieved from <http://infographicsmania.com/online-travel-statistics-2012>
- Wang, J., & Lee, Y. A. (2006). The role of regulatory focus in preference construction. *Journal of Marketing Research*, 43(2), 28-38.
- Watkins, Ed., Moberly, J. N., & Moulds, L. M. (2008). Processing mode causally influence emotional reactivity: Distinct effects of abstract versus concrete construal on emotional response. *Emotion*, 8(3), 364-378.
- White, K., Macdonnell, R., & Dahl, W. D. (2011). It's the mind-set that matters: The role of construal level and message framing in influencing consumer efficacy and conservation behaviors. *Journal of Marketing Research*, 48(3), 472-485.
- White, K., & Willness, C. (2009). Consumer reactions to decreases usage messages: The role of elaborative processing. *Journal of Consumer Psychology*, 19(1), 73-87.

- Wilkie, W. L., & Farris, P. W. (1976). *Consumer Information Processing: Perspectives and Implications for Advertising*. Cambridge, MA: Marketing Science Institute.
- Wu, F. P. (2013). In search of negativity bias: An empirical study of perceived helpfulness of online reviews. *Psychology and Marketing*, 30(11), 971-984.
- Ye, Q., Law, R., Gu, B., & Chen, W. (2011). The influence of user-generated content on traveler behavior: An empirical investigation on the effects of e-word-of-mouth to hotel online booking. *Consumer in Human Behavior*, 27, 634-639.
- Zhang, Z. K., Cheng, M. C., & Lee, K. M. (2014). Examining the moderating effect of inconsistent reviews and its gender differences on consumers' online shopping decision. *International Journal of Information Management*, 32, 89-98.
- Zhang, Q. J., Craciun, G., & Shin, D. (2010). When does electronic word-of-mouth matter? A study of consumer product reviews. *Journal of Business Research*, 63(12), 1336-1341.
- Zhao, M., & Xie, J. (2011). Effect of social and temporal distance on consumers' responses to peer recommendations. *Journal of Marketing Research*, 48(3), 486-496.
- Zhu, F., & Zhang, X. (2010). Impact of online consumer reviews on sales: The moderating role of product and consumer characteristics. *Journal of Marketing*, 74(2), 133-148.

## **APPENDICES**

**APPENDIX A**  
**Stimuli and Questionnaire for Pretest 1**

(Temporal Distance: Distant-Future)

*“Assume that you are going to purchase a pair of athletic shoes **six months** from now and need to read online consumer reviews before you choose the shoes.”*

(Temporal Distance: Near-Future)


*“Assume that you are going to purchase a pair of athletic shoes **in two days** and need to read online consumer reviews before you choose the shoes.”*

(Temporal Distance: Manipulation Check)


1. To what extent are your thought about the consumption event would be occurred?

Very soon	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	Sometime much later
	1		2		3		4		5		6		7	
The near future	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	The distant future
	1		2		3		4		5		6		7	

(Consumer Review: Promotion-focused)




Roll over image to zoom in




Newton

### Newton Motion III Running Shoes





Price: **\$89.99 - \$188.93**  
Sale: Lower price available on select options

Size:  
Select  [Size Chart](#)


Color: Blue/Green




- Mesh
- Imported
- rubber sole
- Action/Reaction™ Technology in the Midfoot and Heel - Absorbs impact and adds responsiveness through the patented dynamic movement system.
- Bio-mechanical Metatarsal Sensor Plate - Allows you to better sense the ground underneath your feet for an enhanced run.
- P.O.P 1 Platform - A system of lugs that move when pressure is applied, activating the trampoline membrane of the shoe for enhanced efficiency.
- Semi-Flat Lightweight Laces - For a secure fit.
- Extended Medial Bridge (e.m.b.) - To the outsole to provide more functional support for runners requiring a greater surface area on the medial side due to pronation or a flatter arch.

Share    

To buy, select **Size**  
Choose from options to the left

 [Add to Cart](#)

[Add to Wish List](#) 

[Add to Baby Registry](#)

### Most Helpful Customer Reviews

Great running shoes

By [S. Cool](#) on January, 2014

Verified Purchase

**I work all day on my feet. I love these shoes because the scientifically-engineered foam lining can actually maximize support and increase shock absorption. They are more comfortable than any athletic shoes I have.**

As expected, all is good


By [Emily Ali](#) on March, 2015

Verified Purchase


**They are very nice shoes. I recommend trying on a pair if you are looking for stylish running shoes that help improve athletic performance and promote endurance.**

[Comment](#) | Was this review helpful to you? [Yes](#) [No](#)

(Consumer Review: Prevention-focused)



Roll over image to zoom in




Newton

### Newton Motion III Running Shoes





Price: ~~\$89.99~~ - ~~\$188.93~~  
Sale: Lower price available on select options

Size:  [Size Chart](#)


Color: Blue/Green





- Mesh
- Imported
- rubber sole
- Action/Reaction™ Technology in the Midfoot and Heel - Absorbs impact and adds responsiveness through the patented dynamic movement system.
- Bio-mechanical Metatarsal Sensor Plate - Allows you to better sense the ground underneath your feet for an enhanced run.
- P.O.P 1 Platform - A system of lugs that move when pressure is applied, activating the trampoline membrane of the shoe for enhanced efficiency.
- Semi-Flat Lightweight Laces - For a secure fit.
- Extended Medial Bridge (e.m.b.) - To the outsole to provide more functional support for runners requiring a greater surface area on the medial side due to pronation or a flatter arch.

Share    

To buy, select **Size**  
Choose from options to the left

 Add to Cart

 Add to Wish List

 Add to Baby Registry

## Most Helpful Customer Reviews

Great running shoes

By [S. Cool](#) on January, 2015

Verified Purchase

**I work all day on my feet. I love these shoes because the scientifically-engineered foam lining can actually minimize the pain of running. They are more comfortable than any athletic shoes I have.**

As expected, all is good

By [Emily Ali](#) on March, 2015

Verified Purchase

**They are very nice shoes. I recommend trying on a pair on if you are looking for stylish running shoes that prevent muscle strain and sore ligaments that occur during running.**

Comment | Was this review helpful to you?

(Manipulation Check- Online Reviews)

2. Online reviews for the Newton shoes emphasize:

Avoiding something negative \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ Attaining something positive

1 2 3 4 5 6 7

More ideas about protection    \_\_\_\_\_ More ideas about enhancement

1      2      3      4      5      6      7

More ideas about prevention                        More ideas about promotion

1      2      3      4      5      6      7

3. What is your age? \_\_\_\_\_

4. What is your sex? Male \_\_\_\_\_ Female \_\_\_\_\_



**APPENDIX B**  
**Stimuli and Questionnaire for Pretest 2**

(Temporal Distance: Distant-Future)

***Ad Banner***



***Scenario***

*“Imagine that you are planning a vacation for **Next Year** and need to read online consumer reviews before you choose the hotel.”*

(Temporal Distance: Near-Future)

**Ad Banner**



**Scenario**

*“Imagine that you are planning a vacation in **This Week** and need to read online consumer reviews before you choose the hotel.”*

(Temporal Distance: Manipulation Check)



1. How much time do you feel is left before the trip?

Very soon	_____ : _____ : _____ : _____ : _____ : _____ : _____	Sometime much later
	1 2 3 4 5 6 7	
The near future	_____ : _____ : _____ : _____ : _____ : _____ : _____	The distant future
	1 2 3 4 5 6 7	

(Consumer Review: Promotion-focused)

# MyReviews.com

HotelsHotel DealsPackages & FlightsGroupsGift CardsWelcome Rewards®



### Hotel search


  
Destination, hotel, landmark or address  

Check in  
mm/dd/yy


Check out  
mm/dd/yy

Rooms  
1 room, 2 adults

Search




3 night  
trip in Apr  
2015


Christine C.  
 US

**“La Perla Villa with maximum privacy and great location”**

The room had soundproofing walls and windows that assure maximum privacy and enhanced restful sleep. The location was very ideal for sightseeing and going to famous restaurants. If you want to increase the maximum benefits for your vacation, I recommend this hotel.



4 night  
trip in Feb  
2015



Billy J.  
 US

**“La Perla Villa with maximum comfort and relaxation”**

I have enjoyed my stay at this hotel. The bed was incredibly comfortable and was immediately relaxed when I lay down. The soft white bedding included the world best pillows and the comfortable mattress could help promote a good night's sleep.

# MyReviews.com

HotelsHotel DealsPackages & FlightsGroupsGift CardsWelcome Rewards®



### Hotel search

  
Destination, hotel, landmark or address  


Check inCheck out

mm/dd/yyyymm/dd/yyyy


Rooms

1 room, 2 adults

Search




3 night trip in Apr 2015


Christine C.  
 US

### “La Perla Villa with guest security and privacy protection”

The room had soundproofing walls and windows that cut down on street noise or other people noise and protected my privacy. Since the hotel is conveniently located, I didn't have to pay extra money renting a car. If you want to avoid a terrible time or bunch of hassles, I highly recommend this hotel.



4 night trip in Feb 2015

Billy J.  
 US

### “La Perla Villa with guest comfort”

I have enjoyed my stay at this hotel. The bed was very comfortable and I was immediately relaxed when I lay down. The room's pillow protectors and mattress pads helped preventing us from getting back pains and they didn't really bother our sleep.

(Manipulation Check- Online Reviews)

2. Online reviews for the La Perla Villa emphasize:

Avoiding something negative \_\_\_\_\_ Attaining something positive  
1 2 3 4 5 6 7

More ideas about protection \_\_\_\_\_ More ideas about enhancement  
1 2 3 4 5 6 7

More ideas about prevention \_\_\_\_\_ More ideas about promotion  
1 2 3 4 5 6 7

(Dependent Variable- Review Attitude)

3. My attitude toward online reviews for La Perla Villa is:

Negative \_\_\_\_\_ Positive  
1 2 3 4 5 6 7

Unfavorable \_\_\_\_\_ Favorable  
1 2 3 4 5 6 7

Bad \_\_\_\_\_ Good  
1 2 3 4 5 6 7

4. What is your age?

\_\_\_\_\_

5. What is your gender?

- ☐ Male  
☐ Female



**APPENDIX C**  
**Stimuli and Questionnaires for the Main Study 1**

(Temporal Distance: Distant-Future)

*“Imagine that you are going to purchase a pair of athletic shoes **six months** from now.”*

(Temporal Distance: Near-Future)

*“Imagine that you are going to purchase a pair of athletic shoes **in two days**.”*

(Manipulation Check- Temporal Distance)

1. To what extent are your thought about the consumption event would be occurred?


Very soon	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	Sometime much later
	1		2		3		4		5		6		7	


The near future	_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____	The distant future
	1		2		3		4		5		6		7	



(Consumer Review: Promotion-focused)



Roll over image to zoom in




Newton

### Newton Motion III Running Shoes





Price: **\$89.99 - \$188.93**  
Sale: Lower price available on select options

Size:  
 [Size Chart](#)


Color: Blue/Green




- Mesh
- Imported
- rubber sole
- Action/Reaction™ Technology in the Midfoot and Heel - Absorbs impact and adds responsiveness through the patented dynamic movement system.
- Bio-mechanical Metatarsal Sensor Plate - Allows you to better sense the ground underneath your feet for an enhanced run.
- P.O.P 1 Platform - A system of lugs that move when pressure is applied, activating the trampoline membrane of the shoe for enhanced efficiency.
- Semi-Flat Lightweight Laces - For a secure fit.
- Extended Medial Bridge (e.m.b.) - To the outsole to provide more functional support for runners requiring a greater surface area on the medial side due to pronation or a flatter arch.

Share    

To buy, select **Size**  
Choose from options to the left

 **Add to Cart**



### Most Helpful Customer Reviews

Great running shoes

By [S. Cool](#) on January, 2014

Verified Purchase

**I work all day on my feet. I love these shoes because the scientifically-engineered foam lining can actually maximize support and increase shock absorption. They are more comfortable than any athletic shoes I have.**

As expected, all is good

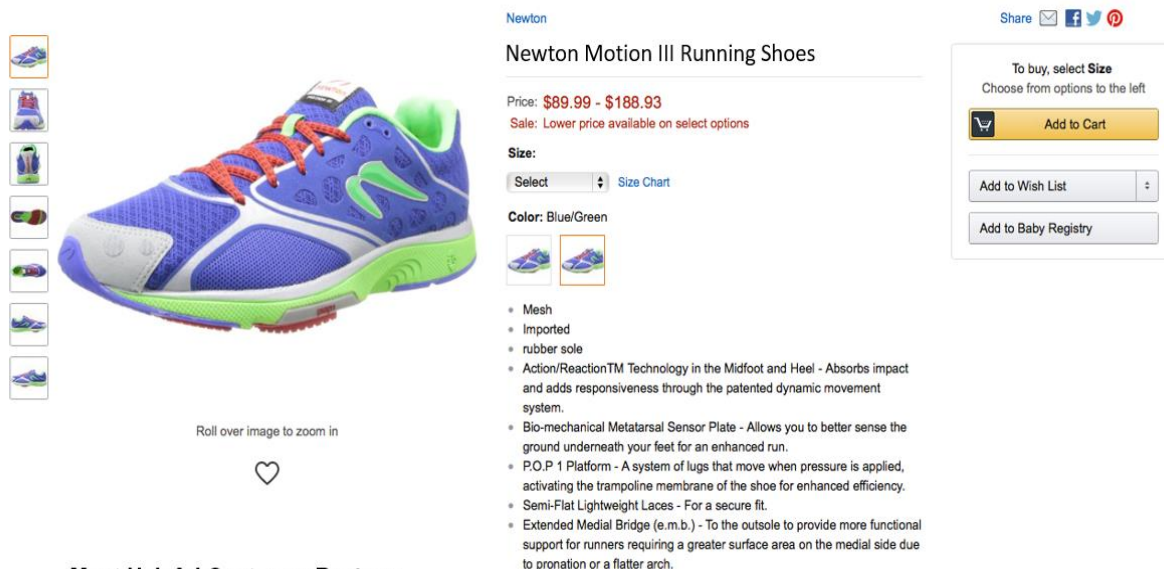
By [Emily Ali](#) on March, 2015

Verified Purchase

**They are very nice shoes. I recommend trying on a pair if you are looking for stylish running shoes that help improve athletic performance and promote endurance.**

[Comment](#) | Was this review helpful to you?

(Consumer Review: Prevention-focused)



Newton Motion III Running Shoes

Price: **\$89.99 - \$188.93**  
Sale: Lower price available on select options




Size:  [Size Chart](#)

Color: Blue/Green


- Mesh
- Imported
- rubber sole
- Action/ReactionTM Technology in the Midfoot and Heel - Absorbs impact and adds responsiveness through the patented dynamic movement system.
- Bio-mechanical Metatarsal Sensor Plate - Allows you to better sense the ground underneath your feet for an enhanced run.
- P.O.P 1 Platform - A system of lugs that move when pressure is applied, activating the trampoline membrane of the shoe for enhanced efficiency.
- Semi-Flat Lightweight Laces - For a secure fit.
- Extended Medial Bridge (e.m.b.) - To the outsole to provide more functional support for runners requiring a greater surface area on the medial side due to pronation or a flatter arch.

Roll over image to zoom in

Heart icon

Share    

To buy, select **Size**  
Choose from options to the left

 **Add to Cart**

### Most Helpful Customer Reviews

Great running shoes

By [S. Cool](#) on January, 2015

Verified Purchase

**I work all day on my feet. I love these shoes because the scientifically-engineered foam lining can actually minimize the pain of running. They are more comfortable than any athletic shoes I have.**

As expected, all is good

By [Emily Ali](#) on March, 2015

Verified Purchase

**They are very nice shoes. I recommend trying on a pair on if you are looking for stylish running shoes that prevent muscle strain and sore ligaments that occur during running.**

[Comment](#) | Was this review helpful to you?

(Manipulation Check- Online Reviews)

2. Online reviews for the Newton shoes emphasize:

Avoiding something negative \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ Attaining something positive  
1 2 3 4 5 6 7

More ideas about protection \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ More ideas about enhancement  
1 2 3 4 5 6 7

More ideas about prevention \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ More ideas about promotion  
1 2 3 4 5 6 7

3. My attitude toward online reviews for Newton shoes is:

Negative	_____	Positive
	1 2 3 4 5 6 7	
Unfavorable	_____	Favorable
	1 2 3 4 5 6 7	
Bad	_____	Good
	1 2 3 4 5 6 7	

4. What is your age?

\_\_\_\_\_

5. What is your gender?

- ☐ Male  
☐ Female

**APPENDIX D**  
**Stimuli and Questionnaires for the Main Study 2**

(Temporal Distance: Distant-Future)

*Ad Banner*



*Scenario*

*“Imagine that you are going to book a hotel room **Next Year** and need to read  
online consumer reviews before you choose the hotel.”*

(Temporal Distance: Near-Future)

*Ad Banner*



*Scenario*

*“Imagine that you are going to book a hotel room **This Week** and need to read online consumer reviews before you choose the hotel.”*

(Manipulation Check- Temporal Distance)

1. How much time do you feel is left before the trip?

Very soon	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> <div>1234567</div>	Sometime much later
The near future	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> <div>1234567</div>	The distant future



(Consumer Review: Promotion-focused)



Posted Feb  
15, 2015 on  
Expedia

By Christine C.



Posted Mar  
21, 2015 on  
Hotels

By Vickie S.



Posted Mar  
28, 2015 on  
Expedia

By Billy.



### ***"Maximum comfort"***

The room had soundproof walls and windows that assured maximum comfort and enhanced my restful sleep. The location was ideal for sightseeing and visiting a famous local restaurant. If you want to maximize ultimate benefits for your vacation, I would recommend this hotel.

### ***"Nice place to stay"***

The bed was incredibly comfortable and I was immediately relaxed when I laid down. The room had great mattress pads that enhanced sleeping comfort.

### ***"Helpful staff"***

Staff and facilities were very well appointed and kept. Helped in all our needs and made the stay very productive and enjoyable. We enjoyed the friendliness of the staff, and the complimentary breakfast was great for our stay!

(Consumer Reviews: Prevention-focused)



Posted Feb  
15, 2015 on  
Expedia

By Christine C.



Posted Mar  
21, 2015 on  
Hotels

By Vickie S.



Posted Mar  
28, 2015 on  
Expedia

By Billy.



### ***"Guest security"***

The room had soundproof walls and windows that cut down on street noise and protected my privacy. Since the hotel was conveniently located, I didn't have to pay extra money to rent a car. If you want to avoid a terrible time or a bunch of hassles, I highly recommend this hotel.

### ***"Safe place to stay"***

This hotel made me feel very safe. There were security cameras in all of the main areas. All rooms had safes and extra locks. The bed was also so comfortable and kept me from getting my back pains

### ***"Helpful staff"***

The staff was very helpful and avoided a huge catastrophe! When we arrived, one of our bags was lost and we had no swimsuits or towels. The hotel provided us with coupons to swimwear stores and gave us beach towels to use every day. They prevented us from having a miserable week and made it quite enjoyable.



(Manipulation Check- Online Reviews)

2. Online reviews for the Sunshine hotel emphasize:

Avoiding something negative \_\_\_\_\_ Attaining something positive  
1 2 3 4 5 6 7

More ideas about protection \_\_\_\_\_ More ideas about enhancement  
1 2 3 4 5 6 7

More ideas about prevention \_\_\_\_\_ More ideas about promotion  
1 2 3 4 5 6 7

(Dependent Variables)

3. My attitude toward online reviews for the Sunshine hotel is:

Negative \_\_\_\_\_ Positive  
1 2 3 4 5 6 7

Unfavorable \_\_\_\_\_ Favorable  
1 2 3 4 5 6 7

Bad \_\_\_\_\_ Good  
1 2 3 4 5 6 7

4. Online review recommendations are:

Not personally relevant \_\_\_\_\_ Personally relevant  
1 2 3 4 5 6 7

Of little concern to me \_\_\_\_\_ Of great concern to me  
1 2 3 4 5 6 7

Uninvolving \_\_\_\_\_ Involving  
1 2 3 4 5 6 7

5. My attitude toward the Sunshine hotel is:

Bad \_\_\_\_\_ Good  
1 2 3 4 5 6 7

Unfavorable \_\_\_\_\_ Favorable  
1 2 3 4 5 6 7

Dislike \_\_\_\_\_ Like  
1 2 3 4 5 6 7

6. Please indicate the extent to which you agree or disagree with the following statements.

Strongly disagree           :        :        :        :        :        :           Strongly agree  
   1        2        3        4        5        6        7

1. It is very likely that I will book this hotel.
2. I will reserve this hotel for my next vacation.
3. I will definitely try this hotel

7. What is your age?

\_\_\_\_\_

8. What is your gender?

- ☐ Male
- ☐ Female

9. What is your ethnicity? (Please check one.)

- ☐ Caucasian/White
- ☐ African American/Black
- ☐ Asian
- ☐ American Indian or Alaska native
- ☐ Hispanic or Latino
- ☐ Bi-Racial/Mixed Race
- ☐ Other \_\_\_\_

**APPENDIX E**  
**Stimuli and Questionnaires for the Main Study 3**

(Consumer Review: Promotion-focused)

Website: <http://skim863.wix.com/seeun>

THE  
SALINGER  
HOTEL

[Home](#) [Consumer Reviews](#) [Rooms](#) [Amenities](#) [Meetings & Events](#) [BOOK NOW](#)

### Recent Consumer Reviews

"Christian. C"

"2 night trip  
in Dec 2015"

"Salinger with maximum privacy and great location"

The room had soundproofing walls and windows that assure maximum privacy and enhanced restful sleep. The location was very ideal for sightseeing and going to famous restaurant. If you want to increase the maximum benefits for your vacation, I recommend this hotel.

"Billy J."

"4 night trip  
in Dec 2015"

"Give yourself a memorable vacation"




I have enjoyed my stay at this hotel. The bed was incredibly comfortable and was immediately relaxed when I lay down. The soft white bedding included the world best pillows and the comfortable mattress could help promote a good nights' sleep.

"Sally R"

"3 night trip  
in Nov 2015"

"Great location and get the best deal"

The hotel was very clean and had a great view of the city! It was easy to walk to the sights. The hotel was in close proximity to the beach and other attractions so I was able to walk only a short distance, instead of walking a long distance in a city that I do not know. If you want a great location and view, stay here!



(Consumer Review: Prevention-focused)

Website: <http://skim863.wix.com/modern-hotel>

Header

THE  
SALINGER  
HOTEL

[Home](#) [Consumer Reviews](#) [Rooms](#) [Amenities](#) [Meetings & Events](#)

BOOK NOW

### Recent Consumer Reviews

"Christian. C"

"2 night trip  
in Dec 2015"

"Salinger with guest security and privacy protection"

The room had soundproofing walls and windows that cut down on street noise or other people noise and protected my privacy. Since the hotel is conveniently located, I didn't have to pay extra money renting a car. If you want to avoid a terrible time or bunch of hassles, I highly recommend this hotel.

"Billy J."

"4 night trip  
in Dec 2015"

"nice place to stay"


I have enjoyed my stay at this hotel. The bed was very comfortable and I was immediately relaxed when I lay down. The room's pillow protectors and mattress pads helped preventing us from getting back pains and they didn't really bother our sleep.

"Sally R"


"3 night trip  
in Nov 2015"

"Great location and don't miss the best deal"


The hotel was very clean and had a great view of the city! It was easy to walk to the sights. The hotel was in close proximity to the beach and other attractions so I was able to walk only a short distance. If you want to avoid spending extra money to rent a car, stay here!



I'm an image title



I'm an image title



I'm an image title

(Manipulation Check- Online Reviews)

1. Online reviews for the SALINGER hotel emphasize:

Avoiding something negative \_\_\_\_\_ Attaining something positive  
1 2 3 4 5 6 7

More ideas about protection \_\_\_\_\_ More ideas about enhancement  
1 2 3 4 5 6 7

More ideas about prevention \_\_\_\_\_ More ideas about promotion  
1 2 3 4 5 6 7

(Individual Difference- Temporal Orientation)

2. The next set of questions asks you how you see yourself. Please answer the following questions.

Strongly disagree \_\_\_\_\_ Strongly agree  
1 2 3 4 5 6 7

1. I consider how things might be in the future, and try to influence those things with my day to day behavior. (Future-oriented)
2. I only act to satisfy immediate concerns, figuring the future will take care of itself. (Future-oriented)
3. I am willing to sacrifice my immediate happiness or well-being on order to achieve future outcomes. (Future-oriented)
4. I think it is more important to perform a behavior with important distant consequences than a behavior with less-important immediate consequences. (Present-oriented)
5. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions. (Present-oriented)
6. I think that sacrificing now is usually unnecessary since future outcome can be dealt with a later time. (Present-oriented)
7. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes. (Present-oriented)

(Dependent Variables)

3. My attitude toward online reviews for the SALINGER hotel is:

Negative \_\_\_\_\_ Positive  
1 2 3 4 5 6 7

Unfavorable \_\_\_\_\_ Favorable  
1 2 3 4 5 6 7

Bad \_\_\_\_\_ Good  
1 2 3 4 5 6 7

4. I would say the online reviews for the Salinger hotel:

Strongly disagree	_____	Strongly agree
	1 2 3 4 5 6 7	

1. make me feel right about booking it
2. be just right for me.
3. make me feel motivated to continue my visit.
4. keep me engaged in my main motivation.

5. My attitude toward the SALINGER hotel is:

Bad	_____	Good
	1 2 3 4 5 6 7	

Unfavorable	_____	Favorable
	1 2 3 4 5 6 7	

Dislike	_____	Like
---------	-------	------

6. Please indicate the extent to which you agree or disagree with the following statements.

Strongly disagree	_____	Strongly agree
	1 2 3 4 5 6 7	

1. It is very likely that I will book this hotel.
2. I will reserve this hotel for my next vacation.
3. I will definitely try this hotel

7. What is your age?

\_\_\_\_\_

8. What is your gender?

- ☐ Male  
☐ Female

9. What is your ethnicity? (Please check one.)

- ☐ Caucasian/White  
☐ African American/Black  
☐ Asian  
☐ American Indian or Alaska native  
☐ Hispanic or Latino  
☐ Bi-Racial/Mixed Race  
☐ Other \_\_\_\_

10. What is the highest level of formal education that you have completed?

- ☐ Less than high school
- ☐ High school or equivalent
- ☐ Some College or Vocational School (no-4-year degree)
- ☐ Bachelor's degree
- ☐ Master's degree/professional degree
- ☐ Doctorate degree
- ☐

11. Which of the following categories did your family income fall into last year?

- ☐ Below \$14,999
- ☐ \$15,000 - \$ 29,999
- ☐ \$30,000 - \$44,999
- ☐ \$45,000 - \$59,999
- ☐ \$60,000 - \$ 74,999
- ☐ \$75,000 or more



**APPENDIX F**  
**Consent Form**

Dear participant,

Welcome to the survey! I thank you in advance for your participation in this survey. This survey is about consumers' evaluation of online reviews. The survey will take about 15-20 minutes to complete.

Please note that as a potential participant you must be 18 years of age or older to take part in the study. You can refuse to participate without penalty or loss of benefits to which you are otherwise entitled. Your participation in this study is completely voluntary and anonymous. You may decline to participate at anytime without penalty or loss of benefits to which you are otherwise entitled. Return of completed survey will constitute your consent to participate. All the information you provide in this survey will remain completely confidential.

In the sections to follow, you will be asked to complete a series of questions about your thoughts and feelings toward the online consumers reviews from the assigned websites.

Should you have any questions at any time about the study or the procedures, you may get in touch with me. We can be reached at [skim86@utk.edu](mailto:skim86@utk.edu) or 1215 W Cumberland Avenue, JHB 244A, University of Tennessee. If you have any questions about your rights as a participant, please feel free to contact the research Compliance Service section of the Office of Research at (865) 974-7697.

Thank you for your participation.

Respectfully,

Seeun Kim  
Ph.D. Candidate  
Retail, Hospitality, & Tourism Management  
The University of Tennessee, Knoxville  
Email: [skim86@utk.edu](mailto:skim86@utk.edu)

Youn-Kyung Kim, Ph.D  
Professor  
Retail, Hospitality, & Tourism Management  
The University of Tennessee, Knoxville  
Email: [ykim13@utk.edu](mailto:ykim13@utk.edu)

**APPENDIX G**  
**Human Subject Exemption Approval Form**

Seeun Kim  
UTK - Retail, Hospitality, and Tourism Mgmt

**Re: UTK IRB-15-02095-XP**

**Study Title:** The impact of regulatory focus review frame and construal level on consumer evaluations of online reviews.

Dear Seeun Kim:

The Administrative Section of the UTK Institutional Review Board (IRB) reviewed your **application** for the above referenced project. It determined that your application is eligible for **expedited** review under 45 CFR 46.110(b)(1). The IRB has reviewed these materials and determined that they do comply with proper consideration for the rights and welfare of human subjects and the regulatory requirements for the protection of human subjects. Therefore, this letter constitutes full approval by the IRB of your application version 1.7 as submitted. Approval of this study will be valid from April 9, 2015 to April 8, 2016.

In the event that subjects are to be recruited using solicitation materials, such as brochures, posters, web-based advertisements, etc., these materials must receive prior approval of the IRB. Any revisions in the approved application must also be submitted to and approved by the IRB prior to implementation. In addition, you are responsible for reporting any unanticipated serious adverse events or other problems involving risks to subjects or others in the manner required by the local IRB policy.

Finally, **re-approval** of your project is required by the IRB in accord with the conditions specified above. You may not continue the research study beyond the time or other limits specified unless you obtain prior written approval of the IRB.

Sincerely,



Colleen P. Gilrane, Ph.D.  
Chair  
UTK Institutional Review Board

**APPENDIX H**  
**Human Subject Exemption Approval Form (Revised Form for Study 3)**



Seeun Kim,  
UTK - Retail, Hospitality, and Tourism Mgmt

**Re: UTK IRB-15-02095-XP**

**Study Title:** The impact of regulatory focus review frame and construal level on consumer evaluations of online reviews.

Dear Dr. Kim:

The UTK Institutional Review Board (IRB) reviewed your application for **revision** of your previously approved project, referenced above.

The IRB determined that your application is eligible for **expedited** review under 45 CFR 46.110(b)(2). The following revisions were approved as complying with proper consideration of the rights and welfare of human subjects and the regulatory requirements for the protection of human subjects:

- Add 1 more experiment (study 3)
- Add 400 participants from MarketTools (for total of 1000)
- Revise instrument (Online Review Study 3-12-01 revised Dec 2015)

Approval does not alter the expiration date of this project, which is 04/08/2016.

In the event that subjects are to be recruited using solicitation materials, such as brochures, posters, web-based advertisements, etc., these materials must receive prior approval of the IRB. Any revisions in the approved application must also be submitted to and approved by the IRB prior to implementation. In addition, you are responsible for reporting any unanticipated serious adverse events or other problems involving risks to subjects or others in the manner required by the local IRB policy.

Finally, **re-approval** of your project is required by the IRB in accord with the conditions specified above. You may not continue the research study beyond the time or other limits specified unless you obtain prior written approval of the IRB.

Sincerely,

**Colleen P. Gilrane, Ph.D.**  
Chair

## VITA

Seeun Kim was born in Incheon, Korea. She holds a Bachelor of Home Economics in Fashion Design from SUNGKYUNKWAN University in Seoul, Korea and a Master of Science in Retail Merchandising from Florida State University in Tallahassee, Florida. Her research interests lie in the social and psychological aspects of consumer behavior and retail strategies, with a specific emphasis on e-WOM, digital retailing, and branding.

During her Ph.D. program, she published articles in the *Journal of Research in Interactive Marketing*, *International Journal of Advertising*, and *Journal of Advertising and Promotion Management*. She received ESPN and Ida A. Anders Scholarships and taught the course *Consumers in the Marketplace* at the University of Tennessee. She also received the best conference paper award from the *American Collegiate Retailing Associate Conference* in 2016. In July of the same year, she successfully completed all of the requirements for her Ph.D. in Retail, Hospitality, and Tourism Management, with a minor in Statistics, at the University of Tennessee, Knoxville.